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COLBURN'S UNITED SERVICE MAGAZINE.

ATTACK AND DEFENCE.

The great military problem of the day is undoubtedly the tactical employment of Infantry.

Infantry, forming as it does the bulk of an army, is eminently the arm on which one must depend in battle; artillery may prepare, cavalry may complete, but infantry alone can win a decisive victory, therefore, it is the formations and movements of infantry especially, that must be studied.

Till recently, the tactical employment of infantry was comparatively easy, for owing to the limited range of fire-arms, lines or columns could be formed at short distances from the enemy, and attacks could be successfully delivered, where attacks in such formations would now be utterly impossible. The vast range and accuracy of modern fire-arms, and the rapidity with which fire can be delivered, have rendered it as futile, as it would be absurd, to approach an enemy, so armed, in the dense formations so lately in vogue. Never again will be witnessed such a magnificent spectacle as the advance in close column of the Old Guard at Waterloo; such a column would advance only to die, and would be ruthlessly swept away, long ere it could reach the enemy. The "thin red lines" that boldly breasted the heights of Alma, are also among the things of the past; their slowness in advancing and the difficulty of availing oneself of cover, render obsolete the famous formations so successfully employed at Salamanca and Vittoria. The combinations of line and column employed by Benningesen, the open columns of double companies that charged at Solferino, will never be seen again. The grand old arrays, that lent "pomp and circumstance" to "glorious war," are gone for ever, and war as a spectacle exists no longer.

"The old order changeth, yielding place to new." But what is that new to be? Are we to adopt the Prussian system without reserve, and fall down and worship that golden calf—the company column? and are we to sacrifice at the altar of innovation the most splendid traditions of the British army? We think not. But to guide us in our decisions, we have only afforded us the lessons taught by the campaign of 1870, for that of '66 cannot be accepted as a fair criterion.

U.S. MAG., No. 530, JAN., 1873.

B

If we examine the tactics of the Prussians during the last great war, we shall find that there is a vast difference between the methods employed by them at the commencement and at the termination of that bloody struggle; at Weissembourg, at Wörth, at Gravelotte, it was the company column; at Le Bourget, at Orleans, Le Mans, it was the swarm of skirmishers.

To arrive at a correct conception of the advantages and disadvantages attending these two methods, it is necessary to enter more minutely into details. Let us then examine the formations of Weissembourg and Gravelotte.

At Weissembourg the attack was made in the following order:—

1st line.—Jagers in skirmishing order.

2nd line.—A line of company columns.

3rd line.—A line of supports of half-battalions in column.

4th line.—A reserve line of battalions also in column.

This attack succeeded in spite of the murderous fire of the enemy, but why? because the Prussians were immeasurably superior in numbers, because the nature of the ground was singularly adapted for such an attack, affording as it did, numerous dead-angles, in which these little columns found shelter, and above all, because the French flank was turned, and the resistance paralyzed.

At Gravelotte the formation was something similar, but the skirmishers and company columns were in one and the same line, in fact, the first line was a line of company columns of sections at quarter distance, and at deploying intervals, the intervals being filled by the third rank in skirmishing order, thus:—



It was in the above formation that the Prussian Guard made their first attack on St. Privat. The advance had to be made across a wide open plain; it failed; and in a few minutes this corps d'élite had lost 6,000 men. From that moment the attack in line of company columns across an open plain was rejected as impossible. Another formation resorted to, was, in first line a swarm of skirmishers, then a line of company columns, and finally a line of battalion columns. But the same objection applies to all these different formations, they were one and all so dense, and except under certain circumstances, failed to penetrate the fearful zone of fire, which separated them from the enemy; in fact, we believe that these formations were little less dense than the old line of battalion columns, and infinitely more so than the formation in line; but on the other hand they had advantages which might in some degree compensate for this—such as extreme mobility, facility of deployment, ease with which cover would be taken advantage of; but none of these advantages could wholly compen-

sate for the awful loss of life entailed by attacks across open ground.

The fatal experiences of the Prussians at the commencement of the war, all tend to show that these formations were too deep to be carried out without most frightful losses. The result was, that at a later period, before Paris and on the Loire, the Germans learnt to attack in the loosest order. The attacks were then conducted somewhat in this fashion:—Having brought up the columns of attack under cover to within about 2,000 paces of the enemy, these columns would be allowed to dissolve into swarms of skirmishers, they would then advance as rapidly as possible, the men making their way by dodging here and there, by creeping along, by throwing themselves down behind banks and bushes, assembling in groups where cover for groups was afforded, then forward again, and in this manner gaining ground bit by bit, till they arrived in close proximity to the enemy; then some officer seeing his opportunity would call his men around him and make a dash for some weak point in the enemy's line, and at this, the decisive moment, the French invariably gave way, and thus the Prussian swarm system asserted its predominance, and convinced all Europe of its infallibility. But though such a system of attack might, and did, succeed against raw undisciplined Mobiles, and demoralized Zouaves; we doubt its efficacy in attacking regular troops. Would steady disciplined British soldiers have given way before the desultory attacks of these organised bush-whackers? we trow not. We maintain then, that all such attacks, except under particularly favourable circumstances, would fail, and in failing, would at the same time offer peculiar facilities for attack; for the excessive flanking movements, which they—the Germans—undertake, frequently operating at the same time against both flanks, must necessarily tend to weaken the centre of their line of battle, and this weakness seems to invite, and in our opinion would render a counter-attack, opportunely delivered, most effective. Such a counterstroke would most probably be met by skirmishers extended on the "swarm" system, in order that their numerical weakness might not become apparent, and because it would be impossible to cover the ground in any more solid formation. Now this "swarm" system is dense without possessing thorough cohesion, and surely when met by troops in more regular and comparatively more compact order, would utterly fail to maintain a successful resistance. But what is this new system of attack to be? Let us examine what has been tried since the conclusion of the war, both in Prussia and at home. In Prussia all efforts have been directed towards the development of the "swarm;" by a more systematic method of advance, a greater amount of order and regularity has been ensured; but still many of the old defects remain.

At the recent Berlin manœuvres, the attack by a brigade, accor-

ding to the *Standard* correspondent, was made by regiments, the 2nd regiment of the brigade being in support, the battalions being themselves formed into four distinct and separate lines; the first of which was skirmishers, the second also skirmishers, the third a line of small pelotons of half sections as supports, and the fourth a line advancing by threes from the right of each section at deploying intervals. The first, second, and third lines, are composed of the first and fourth companies of each battalion, so disposed that the three "zuge" of the company are in the first second, and third lines, respectively. This method has doubtless great advantages over the old haphazard system, for the men of each company are kept together, and are under their own commanders, and there is, therefore, less liability to get mixed than there was heretofore. Still, we do not think that it would be advisable to adopt such a system, because in the first place, the organisation of our battalions and companies is unsuited to such a system, and in the second, because the old fault of density without solidity still remains; for even in this formation, there would be, on an average, four men to the yard, without reckoning the other regiment in rear, and it would be in highest degree difficult, at the actual moment of attack, to change from that to any more solid formation.

Now let us turn to England; during the Autumn manœuvres several systems were given a trial, but in all, the same defects were observable, in all the general idea seemed to be the advance of a line covered by successive lines of skirmishers, which at the moment of attack were reinforced by the line itself extended in skirmishing order; the result was, the men of different companies became hopelessly intermixed, and all control over them was lost by the officers. If we *are* to adopt the "swarm," for Heaven's sake let us have the Prussian organisation, with them, even confusion reigns, but with us the "swarm" means absolute chaos.

A system slightly different from the rest was that that proposed, if not employed, by Sir Charles Staveley, as suitable for a division of three brigades each of three battalions; by this system two brigades were to be in first line, while the third was in reserve, in columns of double companies, either in line at deploying intervals, or in échelon. The first line, when formed for attack, was disposed as follows:—The inner battalion of each brigade extended three companies in skirmishing order so as to cover the whole front; then another line of skirmishers, also of three companies, was thrown out, and the two remaining companies were formed as supports in rear; the centre battalions of each brigade then advanced in line, while the outer battalions, also in line, were refused, so as to protect the flanks of the division. This system certainly has marked advantages, but still is far from fulfilling the conditions required. The advantages attending it are:—

1. That a flank being refused, front can be easily and rapidly changed.

2. That the reserve, occupying as it does, a central position, any point in the line can be speedily supported.

3. That skirmishers may be easily reinforced. But, on the other hand, every fresh reinforcement of skirmishers would only tend to increase the confusion, at first the companies, and then the battalions would become intermixed; again, advance in such a formation in the face of a heavy fire would be impossible, as the long unwieldy lines, owing to their slow rate of advance, would suffer most terribly from the enemy's fire.

But if we presume to criticise every formation that has been employed or suggested by others, we must ourselves not shrink from the onerous task of supporting some system in the place of those we have condemned, and this task we approach with the utmost reluctance, feeling, as we do, our own incompetence to treat so important a subject with the vigour and penetration which are its due; and knowing only too well the long and brilliant array of military writers, exponents of the Prussian system. It is with feelings of the utmost deference to their opinions, that we now venture to suggest a system in opposition to their views. The system of attack that we would advocate, is briefly this:—That the attack should, as heretofore, be carried out by skirmishers, but that the present method of skirmishing be modified; that the battalions in rear should then advance as long as possible in close column, and, if necessary, by wings, every advantage being taken of all cover that may be afforded by the natural lay of the land, but from the moment of coming under fire, the advance to be made in line at open order, either by alternate wings, or by alternate companies, according to the nature of the ground; each successive line advancing about a hundred paces at the run, and then lying down to regain breath, while the line in rear passes it in like manner; the moving lines to advance as rapidly as possible without firing, the line lying down to cover the advance of the moving line by a sustained and rapid fire. In this manner the whole line would gradually approach the enemy, and that we believe without excessive loss; on arriving in close proximity, if the enemy had not already given way, the wings or companies for the time being in rear should close with those in front, so as to occupy their respective original positions in line; thus the final charge would be delivered in a formation somewhat approaching to that grand old order—the traditional British line. The battalions in second line must keep pace with those in front, and be ready at the decisive moment to support them, for in these days of far-ranging weapons, it is more than ever necessary that an attack when made should be successful, the losses that would be suffered in retiring, are too frightful to contemplate. Success is obligatory. Such then is the system of attack that we would suggest as being suitable both to the existing conditions of warfare, and to the national character. Now let us consider this

system a little in detail. We have said that the present system of skirmishing should be modified, our reason for this assertion is, simply, that the method of skirmishing laid down in the drill books is incompatible with order, for by it we cannot reinforce skirmishers without hopelessly intermingling the men of different companies. What we propose in its place is this:—that the front rank only of the flank companies of the battalion should first be extended, so as to cover the whole front, each company covering its own wing; that this line having advanced about fifty yards, the rear rank of the flank companies should be extended, and then double through the front rank line of skirmishers, going about fifty paces to the front, then, lying down, and continuing the firing till passed in like manner by the front rank, if at any moment it became necessary to reinforce the line in front, that in rear would simply double up, and join it; and then, instead of having two companies mingled together, you would find the men to be in almost exactly their original relative positions. When these lines of skirmishers had advanced some two or three hundred yards, the battalions—themselves the actual supports—might be put in motion. If advancing by alternate companies, the advance might be made in what we propose to call the open formation, that is, instead of preserving the touch, extending so that there should be an interval of about one pace between each file; this would most appreciably lessen the loss, and would render a rapid advance more easy. Such a formation would not, however, be applicable to anything larger than a company, for the reason that a battalion extended would occupy too much ground, and so interfere with the advance or fire of regiments on either flank; and also because a battalion would take too long either to extend or close. A company, on the contrary, might extend or close most rapidly; take for example a company of thirty files, when touch is preserved, such a company occupies 20 yards at “open formation,” with about two feet between each file, the same company would occupy about forty yards; therefore, in extending from the centre, the flank files would at most only have to take ground outwards about ten or a dozen yards; and to do this would not take long. Now, by so extending, the alternate companies would fill the intervals that would have been between them, had they advanced with touch preserved, these two lines would therefore have the appearance of two successive lines of skirmishers, but with this incalculable advantage over ordinary lines of skirmishers, that by closing on their respective centres, each company can quickly reassume a more solid formation, and that by bringing up those companies for the time being in rear, the intervals would be filled, and line reformed. While this manœuvre is taking place, the skirmishing companies might gradually edge away towards their respective flanks, and, thus, while making way for the battalion, might occupy the gaps between regiments.

This system, we think, combines the advantages of an advance made in a manner calculated to incur the least possible loss, and an attack delivered in an order sufficiently compact to render such an attack effective. It is probable that the steady but rapid advance of these thin successive lines, the continual fire, the rapid transition from loose order to line would have a far greater moral effect upon an enemy, than the usual hap-hazard advance of clouds of skirmishers, and of the actual physical effects at close quarters, we think little doubt can exist. Having explained the method of advance for a battalion, it only remains to say that when attacking by brigades, the skirmishers should at the last moment retire, or, rather, take ground towards the flanks of their respective battalions, and one rank that for the time being in rear should form a support; thus the intervals between battalions would be filled, and their flanks would in some degree be protected by these supports.

Such a system has the further merit, that little or no change would be required in organization, but we would remark *en passant*, that we consider it disadvantageous for many reasons that a company should exceed forty files, or that there should be more than eight fighting companies in the battalion; this would give a maximum strength of 640 bayonets, but for our part we should prefer seeing battalions of six companies of forty files, that is 480 in all.

Now let us turn to the question of defensive tactics. An attitude strictly and entirely defensive is naturally deprecated by all writers, and condemned by all soldiers; therefore we may assume that as a rule a defensive action simply consists in allowing the enemy to develop his attack, and then having discovered his weak point, acting offensively when and where an offensive action would be most likely to meet with happy results; but although this may be the general idea of the defensive, still there must always be some parts of the line which are actually attacked, and it is the manner of meeting these attacks that we now propose to discuss.

It may be argued that there is little need for changing the defensive tactics of the present day, and this we admit to be true in some degree, for the defence can always select its own ground, and can, therefore, avail itself of all cover that may happen to present itself, and this cover it need never leave; whereas, on the offensive, cover affords but a temporary refuge. Again, troops on the defensive being stationary, do not lose their order, and, therefore, the fact that a formation is unwieldy need not be taken into serious consideration. In fact, we do not hesitate to say that nearly all the arguments that are employed against the "line," apply to a line in motion, and not one in rest, therefore a change in defensive tactics is by no means obligatory; but however good existing formations may be, we should neglect no opportunity of

improving on them, if we believe improvement to be possible, and see a way towards effecting so desirable an end.

For our part we believe that such improvement is possible, and that is to be attained by a bolder and more extensive use of cavalry, and by a greater development of fire. It has often been said of late that the rôle of cavalry ceases on the field of battle; this we deny, for we believe that cavalry may still be most effectively employed during an action, and especially when acting on the defensive. It would be, of course, absurd for cavalry now to attempt grand cavalry charges, such as those of Wagram, of Leipsic, and of Waterloo. To charge across an open plain under the fire of artillery and infantry, armed as they are, would be as hopeless and as vain as was the glorious but desperate onslaught of the light brigade at Balaklava. We admit that the employment of cavalry in masses for such ends is obsolete, but we contend, that when acting on the defensive, cavalry may be employed with comparatively little risk to themselves, and with the prospect of great results; for when awaiting an attack, the cavalry may be held in reserve under cover, and out of reach of shot and shell, till the opportune moment for its employment; the enemy being close at hand, it has not then to traverse an extensive space of ground; it will not be exposed to artillery fire, thanks to the proximity of the enemy's infantry; and finally, the enemy will be in no solid formation suitable for resisting cavalry; therefore, such charges would be made under circumstances the most favorable to cavalry. Such charges should not be made by large bodies of horse, for cover can rarely be found for such, they are not easily put in motion, and they offer considerable marks for the enemy's fire. Attack on an advancing enemy must be made where the opportunity arises, by regiments, by squadrons, and even by troops.

We now come to the question of development of fire, which we have already stated to be a means by which the defence may be improved and rendered more formidable. Our own ideas on the subject are novel and perhaps startling, and may no doubt meet with disapproval; it is, therefore, with extreme diffidence that we propound them.

In meeting an attack, the front should of course be covered by skirmishers, and these skirmishers should be something more than a mere line, for the greater the loss inflicted on the enemy while advancing, the better will it be for the defence. But these skirmishers, if the attack be persevered in, will undoubtedly, sooner or later, be driven back, and then the decisive moment will arrive.

Let us suppose the position attacked to be occupied by four battalions in first line, and four in second, each battalion being 600 strong—the battalions in first line, reckoning the intervals, would therefore cover about 890 yards. The enemy in whatever for-

mation he approached, whether it be the swarm of skirmishers, or the line of column, would be dense, and naturally, the heavier the amount of fire that would be brought to bear upon the approaching masses, the greater would be the loss inflicted; therefore, the question of how to meet and repulse an enemy, simply resolves itself into this:—How can we increase the amount of fire? In reply, we propose the following evolution, which might be executed when the enemy was from three to four hundred yards distant from the first line. When battalions are in line the outer companies to turn inwards, and double in on the remainder, then turning to their front, and the whole delivering a four-deep fire, the front companies kneeling, those in rear standing; such a fire delivered by volleys would be fearfully destructive to those bodies of the enemy against which it might be directed, but this manœuvre would necessarily leave large gaps between battalions, gaps of at least 130 yards, and these gaps should at once be filled either by guns, or by infantry from the second line, also in a four-deep formation.

Imagine the effect that would be produced on a disordered enemy, on seeing batteries of artillery gallop up into these gaps, unlimber, and, at a few hundred yards' distance, pour in round after round of case-shot and shrapnel, or on seeing these same gaps filled by a firm compact mass of infantry, every man of whom was enabled to use his rifle. Few troops, we believe, could make head against such a terrific *feu d'enfer* as would be delivered by such a line; they would waver, hesitate, and finally give way—then through the intervals in the line might be launched troops of cavalry to complete the rout of the enemy, and convert the attack into flight.

It is true that these four-deep lines would suffer infinitely more than lines two deep, but then the effect of their fire would also, we conceive, be doubled, and such a fire at close quarters would, from its nature, be far more efficacious than any other; in fact, we believe that no front attack could possibly succeed when opposed in such a manner. It may be urged that such a front would offer too favourable a mark for the enemy's artillery, so undoubtedly it would, if exposed to its fire, but then we would expressly forbid this manœuvre being performed until the fire of the enemy's guns had been completely masked by the advance of its own infantry; also the reserve guns and cavalry with the infantry of the second line should, till the very last moment, be retained as much as possible under cover.

We have now finished our task, and we trust, that in our endeavours to sketch what we believe to be a tactical system applicable to the circumstances of modern warfare, we have not failed, either by diffuseness, or for want of method, to convey to the reader's mind a correct impression of our own ideas, and of the system that we have advocated. If we have done this, if we have

enabled him to follow us clearly throughout, we are satisfied. We do not expect his ideas to coincide with our own, and shall not, therefore, be surprised if those ideas meet with the severest criticism. In fact, we have only hoped to impress on all the necessity of devising some system of attack by which order may be ensured, and do not for a moment consider that we have thoroughly solved so difficult a problem, as that of "Attack and Defence."

FROM KULDJA TO THE MUZART PASS—A WEEK'S EXPLORING IN THE THIAN-SHAN.*

[In placing the following narrative before our readers, a few prefatory observations may be necessary. The district of Kuldja—whence the Russians, in 1871, expelled the Sultan Abil-oglu, who had set up his own in place of Chinese rule—is formed by the upper valley of the I'li, a stream which takes its rise in some of the northern ramifications of the giant Thian-Shan, or "Celestial Mountains." On the south, this district is conterminous with Kashgaria—the country of Yakoob Beg—which was also under Chinese dominion up to the year 1864, when Yakoob-Beg took advantage of Mohammedan insurrection to substitute his own authority for that of the Mantchu dynasty. The communication between the two districts is through a defile in the Thian-Shan, the Mustag or Muzart Pass. This Pass, which was regarded by Humboldt (*Asie Centrale*, p. 47) as one of the most remarkable features of the Thian-Shan system, has hitherto remained unknown to Europeans, except through the highly-coloured descriptions of Chinese writers. It was partially explored, as were also the glaciers in its vicinity, by Russian officers, in 1869 and 1870, but as neither of the debouches were then in Russian territory, the travellers were unable to carry their researches as far as they desired. After the Russian occupation of Kuldja, which secured possession of the northern entrance to the Pass, the attempt was repeated by Lieutenant-Colonel Shepeleff, whose narrative we now give *in extenso*, omitting only a few geographical data of no general interest.]

I.

Whilst visiting the newly-occupied district of Kuldja, in the autumn of 1871, I formed a design of exploring the Muzart Pass, and as my project met with the full concurrence and approval of General Kolpakovski, the military governor of Semiratchinsk, who kindly promised all the aid in his power, I determined to start at once, notwithstanding the advanced state of the season, and the

* (From the Russian of Lieut.-Colonel Shepeleff.)

rumour that the snow had already made its appearance at the head of the Pass.

Accordingly, on 6th October (18th October new style), 1871, I set out from Kuldja in company with General Kolpakovski, who was making a tour of inspection of the military posts in the southern portion of the Semiratchinsk district.

Crossing by ferry over the I'li, here from 400 to 450 yards in width, although the waters were at their lowest, we found ourselves in the midst of some encampments of the Sibo—Mantchu-Chinese settlers—who came to thank the general for having delivered them from the tyrannical rule of the Tarantchi sultan, Abil-oglu. An equal cordial reception awaited us at the numerous *kents*, or Tarantchi villages, scattered along the day's route, at one of which our party put up for the night.

On the following day, October 7th (19th), we commenced the ascent of the lower slopes of the Akbourtam chain, which forms the connecting link beneath the valley systems of the I'li and the Tekes, and passed the night between some felten tents provided for our use by the nomade Kirghiz of the southern slopes. We were still eight *versets* (five English miles) from the entrance of the Pass, and the ground was already covered with snow.

Early on the morning of the 8th (20th), we resumed the ascent by a terribly precipitous path. At a turn in the valley, where it forms a junction with the vale of the Sonatchou, a glorious scene opened—the entire valley of the I'li lay before us, flanked on the north by the mountain-chains of Talki, Kok-Kamyr, and Borogo-Bossun, sharply defined as upon some gigantic relief-map, and deeply surrowed by the courses of the I'li and the Kash, the latter of which enters in from the northward a little to the east of Kuldja. Both banks of the I'li were studded with villages embosomed in a sea of verdure covering a considerable portion of a landscape lighted up with the rays of a brilliant sun. The whole valley had a perceptible slope from north to south. The Sonatchou defile, whence we looked down upon this scene, itself wore a strange fantastic aspect, the soil appearing of all the hues of the rainbow, rosy-red, orange, blue, violet, and green, an effect produced by the sun's rays glancing upon the many-coloured beds of clays and gravels at our feet.

Quitting the Sonatchou valley by the Tchaptal Col, the height of which may be taken approximately at 9,000 feet above the sea level, the track descends the opposite water shed, and after crossing another chain of somewhat lesser elevation, the Altyn-tau, enters the Tekes valley. Here we found several Kirghiz encampments, amongst others, that of the noted freebooter, Djiten.

We were now fairly in the midst of winter. Everywhere around the herbage was hidden by a snow mantle, a circumstance which took us somewhat by surprise, as we had left fine autumnal weather behind us in Kuldja. Our little party slept in a Kirghiz village ;

and on the morrow, the 9th (21st), forded the Tekes at a point 40 *versts* distant from the Russian post on the Thian-Shan, where, for the first time, the majestic, snow-clad outlines of the Thian-Shan, and even the peak of Khan-Tengri towering above them, were visible. Generally speaking, the latter peak is rendered invisible by its shroud of snow. The whole northern slope of the range, as well as the valley at our feet, appeared to be clad in a forest of firs.

The same evening we reached the Russian outpost of Thian-Shan, situate about five *versts* from the entrance to the Muzart Pass, on the somewhat precipitous left bank of the Yurten-Muzart, an affluent (on the right) of the Tekes. The two succeeding days were spent in getting ready a party of Cossacks to go with me, and making other preparations for the journey. My departure was fixed for 12th (24th) October, and General Kolpakovski deputed Captain Betsonoff and Ensign Pozdine to accompany me, the former in charge of the Cossack escort, the latter to survey the country passed through.

The Muzart Pass is situated in a part of the Thian-Shan to the eastward of Issyk-Kul, which bears the name of "Mustag," or "Mussur-deban," i.e. the "Ice-Mountains." It is generally reputed the most direct route from Dzungaria into Chinese, or Eastern-Turkestan, but, according to Chinese accounts, it presents extraordinary dangers and difficulties caused by the vast glaciers over which it passes.

The Pass had been visited previously by Staff-Colonel, now General Paltoratski, in 1867, and again, in 1870, by Lieut.-Colonel Tchailkovski and Capt. Baron Kaulbars. The results of these officers' explorations were subsequently published by the Imperial Russian Geographical Society, but they differ considerably in matters of detail. I shall endeavour, in the course of my narrative, to explain the discrepancies which appear to exist between my own observations and those of my distinguished precursors. On the 11th (23rd) October, the eve of our intended departure, a Kashgarian caravan made its appearance *en route* to Aksu, taking the self-same road we proposed to follow. In many respects the incident was favourable to us: the caravan, moving ahead of us, would not only show us the way, but would consolidate the snow in the gorges for our transit.

At noon, the sky was overcast. At 3 p.m., it cleared a little, and we set out. Chain in hand, we had not accomplished more than five *versts*, when a terrific snow whirlwind met us at the entrance to the Pass, completely barring all further progress. Around us all was dark as night, and not without considerable difficulty we retraced our steps to the post. During the night the storm abated, and by 8 a.m. next morning we were again on our way. With us were a couple of Kirghiz guides, who had visited the Pass before; and ahead of us was the Kashgar caravan, which had started at day-break. Our route lay across the underfeatures of the northern face of the Thian-Shan, at whose feet flowed the Yurten Muzart, or

“lesser” Muzart. The survey of the road was resumed where we had been interrupted the night before.

Perched upon the steep left bank of the stream, at the entrance to the Pass, was an empty earthen hut, which had served as a *cache* for the Cossacks’ rations. The general line of the Pass is at first toward the south-east; its slopes are clothed with forest, and although not actually precipitous, are very steep, and have a weird, desolate aspect, which becomes more and more marked the higher you ascend.

For a couple of *versts* beyond the hut, the track followed the left bank of the stream to a spot where we found some remains of a Chinese or Kalnuck post, probably Shatou, or Shatou-Aman of Chinese accounts. Four *versts* further on again the Yurten Muzart receives an affluent, the name of which we could not learn, although the stream is little, if at all, inferior in size to the Muzart itself. Forging the stony bed of a smaller stream, called by General Poltaratski the “Maraldy,” a name, I am inclined to think, rightly belonging to two other streams farther on, we pursued our way along the left bank of the Yurten-Muzart, here dotted with clumps of beeches. The weather was magnificent, and the survey operations a complete success, although the deep snow offered some impediment to the use of the chain, which was carried by our Cossacks turn about.

At this stage of our journey, I sent forward four Cossacks with an invitation to the caravan people to keep company with us on the road. I was fearful lest the rumours of our approach might give rise to difficulties with the Kashgarian outposts—difficulties, which the known ill-will of Yakoob-Beg towards the Russians rendered only too probable, but the responsibility of which I had no desire to incur. I wished to carry out my enterprise to the uttermost in my power, but at the same time to avoid any inopportune *rencontre*, which might delay, if it did not wholly frustrate, the ends I had in view.

Quitting the birchen glade, we again rose the steep, the road a mere narrow track winding over the buttressed slopes of the left bank of the stream, strewn with boulders and covered with a thick forest of lofty firs; whilst below the Muzart crashed in a foaming torrent over a fall of considerable depth. After performing about two and a half *versts*, we were brought to a halt by a huge fragment of rock overhanging a depression in the mountain side, through which our road lay across two deep chasms spanned by frail Chinese foot-bridges, which appeared to have been repeatedly broken down with the object of closing the Pass. These bridges were formed of fir saplings roughly laid across and covered with earth, with a space of not more than three feet intervening between the footway and the rocky slope alongside. We had to dismount and off-load the pack-horses, as the vault of rock overhead formed a projecting mass with which a man in the saddle or the pack of a bat-horse must inevitably

have come in contact at the risk of being hurled into the gaping abyss below, where the Muzart foamed and seethed amongst the rocks in a thundering torrent. The horses were led over, and this dangerous feat accomplished, with no less caution we began to descend a circuitous path winding down the mountain side, where the loose stones slipped away beneath our horses' feet at every step. The deep snow, which somewhat impeded our progress, was not unfrequently of signal service, as it afforded a sure foothold for the animals in their perilous descent. Two and a half *versts* beyond, we came upon a small plain where rose the felten tent of a Russian picquet, composed of five Cossacks, posted here, at a distance of fourteen *versts* from the Thian-Shan detachment, to watch a passage supposed to exist between the Muzart valley and that of the Aksu, a tributary of the Tekes situated farther to the eastward.

Beyond, again, our route ascended the mountain, here covered with majestic firs, and crossed a small stream. Three *versts* from the Cossack post, a small stream, the Mai-boulak, which we crossed on our horses in a boat, flows into the Yurten-Muzart from the south-west, and three *versts* further again, the slope gets less steep, and in the midst of the forest we found several natural clearings with abundant pasturage, forming excellent halting-places for a small detachment. The valley now widened, and the banks of the stream were covered with an abundance of herbage, as good in quality as it was plentiful. Six *versts* beyond the Mai-boulak, and twenty *versts* (thirteen miles) from the entrance to the Pass, are the ruins of a Chinese picquet-house, called Yudeyoughi, a wooden building, in good preservation, and capable of accommodating a party of fifty men. Here we took up our quarters for the night, sending our horses and a flock of thirty sheep we had brought with us out to graze, although the ground was covered with a sheet of snow. On the morrow, the 14th (26th) October, a glorious winter's day, we resumed our march. The road continued gradually to ascend the slope, the valley of the Muzart being here about half a *verst* (quarter of a mile) in width. Presently, after crossing, by a bridge, another small affluent, the Bikely, we found that the valley widened—in some places to a breadth of 800 or 900 yards—the Muzart flowing through a sandy bottom, with the sand in many places cropping up above the snow. The road follows the bed of the stream, which forms several arms, and in spring and autumn must be nearly impassable. About six *versts* from Yudeyoughi the Muzart receives a couple of smaller streams, which the Kirghiz guides called the "Maraldy."

Here and there we passed clumps of *spiræ* and hawthorn, and over the whole floor of the valley was an abundance of small shingle. From the embouchure of the two last-mentioned streams, the valley trends to south-east and south-south-east, and the main range of the Thian-Shan, crowned with its eternal snows, appears, its icy front seeming to bar all further progress in that direction. Gradually,

the valley narrows; the fir forest upon its sides stretching down to the water's edge in scattered clumps; the road winding along the western flank, until, at the seventh *verst*, for the first time, it crosses over to the right bank of the Yurten-Muzart. Here we found the Kashgar caravan awaiting our arrival. We had accomplished thirteen *versets* (about six miles) that day, and it was still only 3 p.m.; but I determined to proceed no further, as I was anxious to keep with the caravan, and the lading of the beasts would delay the departure of the latter until sundown.

I therefore invited the caravan-bashi to a conference, and communicated to him my intention of travelling in company. He appeared wofully put about, and tried all in his power to dissuade me from the execution of my project. First, he expressed fears lest Yakoob-Beg, whose mistrust of the Russians was so well known, would put him to death on suspicion of aiding us to reach the reverse slope of the Thian-Shan. Then, he portrayed in vivid colours, the perils awaiting us at a further stage of our journey, over a road formed of pointed fragments of ice, without a blade of grass far or near. He mentioned, too, the Kashgar outposts at the head of the Pass. The most advanced parties, he said, would certainly fly at our approach, but, unless we took the precaution of capturing them, the news would speedily reach Aksu, and we should find ourselves in the presence of a force sufficient to stop our further progress. He had taken this difficult route from necessity; urgent private affairs requiring his immediate return to Aksu. Lastly, he besought me to allow him to travel a day in advance; otherwise, he would much prefer to go back to Kuldja. Determined not to be thwarted in my enterprise, I at once refused to accede to his requests, telling him that we had no reasons to fear the Kashgar picquets, as our intentions were purely pacific; and that as regarded difficulties by the way, if the obstacles were surmountable by his caravan, they assuredly were not impracticable for us. After receiving this categorical reply, he conferred for some minutes with his companions, and then consented to stay where he was for a couple of days, to enable us to get well ahead, and so to preclude the possibility of the Kashgarian picquets obtaining intelligence of our entry into the Pass.

On the following morning, 15th (27th) October, we resumed our journey, leaving behind us every article of baggage not absolutely necessary, and the greater part of our flock of sheep, in charge of three Cossacks. The road followed the bed of the stream, through the heart of a thick forest of firs. At the end of the first *verst*, we crossed a little stream, the Tasty-Boulak, whose bed, like the precipitous ravines around, was strewn with gigantic boulders. At every step we had to twist our horse's heads, to the right or left, at the imminent peril of their legs, to avoid the obstacles in our path; but, at last, after tumbles not a few, we got clear of the abominable place without damages beyond a few contusions. On the farther

side of the stony stream, the road passes through a wide valley over the gently sloping underfeatures of the western slope, forming the right bank of the Yurten-Muzart, which here flows in a deep rocky channel. The whole of the right bank thus traversed, extending over a distance of seven *verst*s to the embouchure of the Artshaly-Karatchat, close to the main range of the Thian-Shan, bears the name of Khan-Yalaghi. It is reported to be the camping-ground of a Kalmuck chieftain whose duty it was to provide horses for the Chinese frontier-couriers. It has the appearance of a wide plain covered with short close herbage of very good quality. After passing the Tasty, the forest gets thinner, and we found an abundance of a dwarf shrub known as "camel's-tail" (*caragana jubata*), which marks pretty accurately the limits of continuous vegetation.

At the extremity of the Khan-Yalaghi plain, the track descended into a dry portion of the bed of the Muzart, which here is of considerable width, and very soon afterwards we came to the stream just mentioned, the Artshaly-Karatchat, taking its rise in a glacier—the first we had seen—on one of the summits of the Thian-Shan towards the south-east. So far as can be judged from written accounts, this is the glacier visited by General Poltaratski in 1867, and by Baron Kaulbars in 1870. According to my measurements, it is 40 *verst*s (28 miles) from the entrance to the Muzart Pass, and although this calculation differs materially from the estimates given by the above-mentioned authorities, I am disposed to think that mine is nearest the truth, being the result of chain measurement, and consequently less liable to error than a deduction from any ordinary eye-sketch. The glacier was buried in snow, so to speak, its existence at this spot being revealed only by the glitter of the ice-bound *moraine*, whose scintillations could be seen from afar. This, according to the before-named authorities, is the largest glacier along the whole northern slopes of the Thian-Shan, and is connected with the "Mer de Glace," of which more anon.

By persevering efforts, slipping and sliding at every step, I reached the lower edge of the *moraine*. The higher I rose, the firmer became the snow under my feet, until at the edge of the *moraine*, despite its depth, five feet, which I measured with my alpenstock, it bore my full weight without sinking. Further I could not get. I was thoroughly beat; and, moreover, the fragments of rocks were of a size which it would have been impossible for me to surmount without assistance.

Continuing along the valley, the Muzart dividing itself into several small branches, and the road climbing the steep sides of the main Thian-Shan range, which forms the right bank, we came to the embouchure of a little streamlet, taking its rise in a smaller glacier, which comes down nearly to the Muzart itself.

Here we chose our night's camping-ground. In spite of all obstacles, we had accomplished 13 *verst*s, and before us, on the morrow, lay the difficult task of reaching the head of the Pass. The

Cossacks were sent down to fetch fuel from a small wood of firs at the foot of the last-mentioned glacier, marking the uppermost limit of vegetation on the northern slope of the Thian-Shan; and the horses were turned out to get their last bite of grass on their forward journey.

II.

On the morning of the 16th (18th) October, we were early astir in anticipation of the great event of our journey, the crowning of the Pass. Whilst the escort fell in and made their final preparations, I climbed to the lower moraine of the little glacier, whence the Tura-Su—the streamlet last mentioned—takes its rise. The summit whence the glacier descends forms a “saddle-back,” through the depressed portion of which were visible the snowy peaks of the Thian-Shan further to westward.

Shortly after the junction of the Artshaly-Karatchat with the Muzart, the valley of the latter turns for good to the west, and the road crosses to the opposite bank of the stream. From this spot to where the ascent of the *col* actually begins, is a distance of about five *versts*.

As I had foreseen that a little way on the other side of the *col* there would be a Kashgar outpost, I despatched Captain Betsonoff with a few Cossacks, half an hour in advance, to take any measures that might appear necessary, whilst I followed with the rest of the party. On leaving our bivouac, the track turned sharply to the south, and a magnificent spectacle opened before us. In front was what appeared to be a vast waterfall turned to ice, reaching down to the junction of the Tura-Su with the Muzart. It was the largest and most striking glacier we had yet seen. About a hundred yards wide, and filling the whole breadth of the Pass, it appeared to take its rise in the east and to run towards the north. Its length was apparently about a couple of *versts*. This is the glacier marked by Baron Kaulbars “Yalym-Khatsir.” It is composed of massive blocks of dark-grey ice piled one upon another, and intermixed with snow-covered fragments of rock. The outline was sharply defined, the upper portions clear and translucent, the lower portions and the sides much intermixed with sand and gravel. The profile resembled a vast head of *débris*, the highest portion of the heap being at the lower extremity of the glacier, which is 700 or 800 feet high. Unfortunately, neither the season nor the time at our disposal gave me any opportunities for observing the movements of the glacier.

The path we had to follow to reach the *col* lay to the eastward of the glacier, across the steep boulder-strewed sides of the mountain. Higher and higher it rose, becoming at last extremely precipitous. Our horses suffered cruelly from the increasing rarification of the air. After completing four and a half *versts* in about three hours, we reached the most elevated portion of the *col* at noon. It bore

the appearance of a small plateau, whence the snow-clad peaks of the Thian-Shan range were visible on either hand. Time was too precious for us to pause, and crossing the plateau, we commenced the descent of the opposite slope. From this point we were in Kashgaria. Having no barometer—I had been unable to procure one at Tashkend or Fort Vernaye—I was unable to determine the altitude of the *col*, and consequently of the Thian-Shan range at this point, a circumstance the more to be regretted as my predecessors had found themselves in a like predicament. It is, therefore, with all due reservation that I give the results of my observations. In my opinion the glacier at the foot of the final rise is 5000 feet above the Tekes valley, and, consequently, 10,500 feet above the sea level. The approximate height of the *col* itself would therefore be 12,000 feet. The length of the Pass, from the northern under-features of the Thian-Shan to the summit of the *col*, as measured by the chain, was about 50 *versts* (33 miles).

Our road wound along the slopes forming the flanks of the defile on the Kashgar side of the *col*, crossing and recrossing it from right to left. The path was much less difficult than the ascent of the *col*, as we had no longer to contend with the huge fragments of rock, which our horses had so much difficulty in surmounting. We were travelling over soft, and so far as we could judge, swampy ground. Now and again the horses would plunge in up to their girths, and at the bottom of the holes thus made we could see water under a coating of ice, indicating the existence hereabouts of small pools, fed, probably, by the water from the smaller arms of the glacier on the southern slope.

On climbing a little eminence, about three *versts* below the summit of the *col*, a wholly unexpected scene broke upon our view. Before us was a deep gorge, the result, seemingly, of some fearful cataclysm: vast blocks of ice, snow-covered, and crowned with boulders and detached fragments of rock, strewed its sides. Our first impression was that further progress was at an end, as the southern slope of the *col* terminated abruptly in a sheer precipice reaching to the very bottom of the ice-bound gorge, over whose sides the eye wandered in vain in search of even the semblance of a bridle-path. So far as we could judge, the ice-field at the foot extended for about six *versts* to the eastward, reckoning from the precipice which terminated the southern slope of the *col*, and was about one and a half *versts* (three quarters of a mile) in width. Like vast frozen billows rolling from the summits of the Thian-Shan stretched the ice hills from far as the eye could reach eastwards to the spot where we stood, and then turned off in a southerly direction. This ice-field, it should be observed, is quite distinct from the portion of the Thian-Shan range now generally recognised as the *Mer de Glace*.

In front of us rose a striking object—a mountain mass of vivid red, probably red granite—from whose summit hung a frozen cataract, a pendant tributary to the sea of ice below and around.

With great difficulty we reached the foot of the precipice, where a task awaited us more difficult than any we had yet encountered. Our guides were wholly unacquainted with the southern side of the range, and we had to look about ourselves for some practicable outlet. At first we took a westerly course, then we turned south, making a wide sweep, and thus satisfying ourselves that some *versts* further on, beyond the ice-field on which we were, the defile narrowed considerably, and bore away towards the south-east. Our progress was slow and toilsome. Precipitous hills of ice rose in interminable succession behind each other, separated by occasional *crevasses* full of snow strewed with frozen fragments of rock, which it cost us almost superhuman efforts to scale. Onward we went, our horses stopping at every step to get breath, and shivering in every limb at each fresh slip on the icy slope. Turning southwards, the ice-field widened, and continued to a further distance of two and a half *versts* (a mile and a half). On every side we were shut in by arctic forms of forbidding aspect and giant size. As we went on, the scene became more and more striking; huge ice-hills, three to five hundred feet in height, stood out, isolated or massed together in groups. That our progress was in any way practicable was due to the season: the snow, in drifting, had filled the *crevasses* and levelled off the precipices, and had already acquired sufficient hardness to afford a firm foothold for the beasts, who sank comparatively little in it. But the slopes, which were too steep to admit of such friendly lodgment, offered innumerable difficulties and no small danger; our feet slid from under us, our horses fell repeatedly, bringing down their riders with them; two pack-horses fell to the bottom and were dashed to pieces. Not a vestige of life was anywhere visible; but here and there were the bones of some luckless animal which had perished amidst the ice, marking the track of an earlier caravan that at some time had dared the perils of the route. Fragments of rock, many yards in length, were poised around in all sorts of impossible positions, many of them resting on supports of ice scarce a foot in diameter. Passing from one ice-hill to another, we sometimes found ourselves in small valleys shut in all round by perpendicular walls of transparent ice, to get out of which we had to avail ourselves of the well-worn steps cut in their sides by some previous wayfarers, without which escape would have been impossible. Ever and anon the eye rested on some dainty grotto, its entrance half closed with spotless snow; or on some fretted niche of fantastic form—and all of the purest and most unsullied ice; or on a pillared façade, in the interval of which, as though placed by the hand of man, were statue-like columns of prismatic ice. From roof to floor of these grottoes hung fringes of icicles, of a hardness which rendered them impossible to break and caused them to emit an agreeable metallic sound when struck.

The variety of mineral substances strewed around was very remarkable: we recognised fragments innumerable of marbles of all

colours, jaspers, agates, and other stones, most beautifully veined ; and we observed, too, that these were not scattered pell-mell, but appeared to be disposed symmetrically, according to the colours of the substance of which they were composed.

Twilight was now coming on, and every moment the landscape assumed a more weird and unearthly guise. Presently a low rumbling sound from the eastward fell upon the ear. For some time we had paid no heed to it ; but now, scanning the horizon, we could distinguish an avalanche of snow descending from a distant mountain summit. Arrested by some jutting prominence on its way, it would hang suspended for a few seconds, from time to time, and then, with a sullen roar, resume its way towards the icy sea, dragging away with it huge fragments from the surrounding rocks. More than six and a half hours had elapsed since we had cleared the *col*, and we were still moving over the ice in ignorance of the fate of our advanced guard under Captain Betsonoff. The further limit of the icy sea was yet three *versets* ahead. To have pushed on in the dark would have involved too great risks—risks which were heightened by the condition of the Siberian Cossacks forming the escort, who, appalled by the wonders of the scene, were completely overcome by superstitious fears and crossed themselves at every step. It was absolutely necessary to halt, come what might. Accordingly, having managed to kindle a fire with a little wood we had brought with us, we formed our bivouac upon an ice hillock with a level surface about three feet square. Our poor horses had to put up with a scanty feed of oats, or none would have been left for next day. Luckily, the moon shone out bright, and the cold was moderate, the thermometer standing at six degrees Reaumur (forty-five degrees Fabr. ?) The strange stillness of the night was broken only by subterranean moans and rumblings arising from the hidden *crevasses* in the lower portions of the glacier, where the pent-up waters were seeking for themselves new outlets.

III.

On the following morning, 17th (29th) October, the weather was not as fine as on the preceding days, and masses of dark grey cloud hung ominously about the snow-clad summits. I felt greatly concerned as to the fate of Captain Betsonoff and his party, for traces of whose whereabouts we had looked anxiously, but in vain, the evening before ; but the exhausted condition of the men and horses, the want of forage, and ignorance of what might be before us, forbade any hope of an indefinite advance, and I therefore determined to push on a little further, and then to hurry back, by forced marches, so as to reach the pasturage on the opposite side of the *col* before nightfall. The escort had just begun its march, when one of the Cossacks, who had climbed a neighbouring peak, reported that he saw some men at the end of the ice-field. Ascending the

point myself, I plainly discovered, straggling along at the foot of the ice, several figures of men looking from the eminence where we stood like so many animated specks. Presently, with the aid of a glass, we descried a stone block-house showing out indistinctly against a background of snow-covered rock in its rear. This, beyond doubt, was the Kashgar outpost of Mazar-bash, of which we had heard, although its site certainly appeared somewhat strangely chosen. We might readily have passed it unobserved by keeping to the centre of the glacier, even as it had escaped our notice the evening previous. The Kashgarians were not slow to observe us: we saw them hurrying into and mounting to the roof of the building, the better to scan our figures grouped on the icy pinnacle. Evidently, they were in a state of great consternation. To show that we had no hostile designs and were not desirous of concealment, I sent forward one of the guides with a file of Cossacks bearing an invitation to the commandant of the post to come to me.

Immediately afterwards, a horseman appeared following the road by which we had come, who proved to be a Cossack of Captain Betsonoff's detachment. He reported that on the evening of the 16th (28th), after crossing the *col*, the detachment had moved down to the ice-field, and had arrived at the post of Mazar-bash about dusk. The outlying sentries warned them that they had orders to prevent the passage of any armed strangers into the dominions of Yakoob-Beg, ruler of Kashgaria. Captain Betsonoff persisted, however, and the party was conducted to the block-house, where they passed the night, by permission of the Yuz-bashi in command of the post, who was obliging enough to provide the Cossacks with wood, for which he refused all remuneration. It appeared, however, that intelligence had been sent on to the next Kashgar post, Tanga-tash, as during the night several men arrived at Mazar-bash by ones and twos, demanding admission. It should be stated that the block-house is perched upon a terrace surmounting a precipitous face of rock, the only means of access to it being some steps cut in the latter. On these Captain Betsonoff had posted a couple of Cossack sentries, with orders to allow no person to come up. The new arrivals were accordingly told that it was against our rules to admit anybody into a bivouac after 9 p.m.; if, therefore, they had business at the post, they must return next day. The Yuz-bashi also went out and parleyed with them, assuring them of the absence of any hostile intentions on the part of the Russians, upon which they took themselves off. To notify to us his whereabouts, Captain Betsonoff had the "retreat" sounded repeatedly, but the vast intervening masses of ice had prevented the sound reaching us. At daylight, on the 17th, he left the post on his way back to the head of the Pass, hoping to find us there, and on discovering our track, had sent back the orderly in pursuit of us, while he pushed on to the *Col*. Three hours later, our messengers returned in company with the Yuz-bashi, who was apparently in a state of

the greatest trepidation ; his lip quivered convulsively, and, according to the Cossacks, it was only on the assurance that if he did not acquiesce in the invitation, our party would scale the post, that he set aside the remonstrances of his subordinates and consented to return with the messengers. I did my best to reassure him, and thanked him for the hospitality he had shown to our advanced guard. I then interrogated him as to the state of affairs in Aksu and in the towns further eastward, and also respecting the character of the country around ; and when I dismissed him later, he appeared fully reassured as regarded his own personal safety.

The Kashgar post of Mazar-bash is a rectangular block-house with earthen roof, and provided with loop-holes and battlements. It had been built about three years, and was constructed of light-grey bricks burned in some peculiar Chinese fashion, which appears to impart great hardness to them. The garrison consisted of thirty men, under a Yuz-bashi wearing a crimson turban in token of authority. The soldiers were clad in the usual long caftan, and neither in dress nor mien differed in any way from ordinary Tarantchis. Each man carried a matchlock of very fine workmanship, and some of them a yataghan as well. According to the Yuz-bashi, their pay was four roubles a month ; besides which, each man received, yearly, a new pelisse, and a gratuity of two roubles. He added, of his own accord, that their pay was issued very irregularly, and was often six months in arrear. The block-house had no door, but was entered through the roof, the loop-holes, aforesaid, serving as steps up to the latter. The detachment had no horses—owing as much to the difficulties of ingress and egress as to scarcity of forage. Provisions and fuel were brought from the post of Tanga-tash to the end of the glacier, and carried up into the post by hand. In rear of the latter are some tombs in the rock, whence it takes its name, and which are mentioned in Ritter's itinerary of the route from Kuldja to Aksu.

At this point, the ice-field, of which we have spoken above, falls in a precipice of ice, forty feet deep, traversed by steps cut in its face. Caravans, which come this route, are compelled here to lower their cattle by means of ropes. From beneath flows the Southern-Muzart, which has probably the same source as the glacier itself. Three *versts* further on, the glacier comes to an end, contracting considerably, and finally debouching in a wild and narrow defile, running towards the south-east and turning afterwards in the direction of Aksu. The pressure of the glacier must drive the ice down into the valley, and as the glacier is reported to make little if any advance in the latter, it is probable that the snow-line corresponds with the lower limit of the ice-field. According to the Yuz-bashi, the distance from the post of Mazar-bash to Aksu is 200 *versts* (130 miles), which agrees very closely with Ritter's estimate, although the names of the intermediate posts given by that geographer do not accord with the information furnished to us. This may

be accounted for by the fact that Ritter enumerates the posts existing under the Chinese rule, many of which have been destroyed, or replaced by others, while others again remain, but have undergone alterations in the pronunciation of their names.

Bidding farewell to the friendly Yuz-bashi, at noon on the 17th (29th), we began to retrace our steps towards the *col*, and had but just set out, when a furious snow whirlwind swept down upon the ice-field. The wind blew directly in our faces, materially augmenting the dangers and difficulties of our progress, and we had to seek out carefully our traces of the previous evening, to ensure a firm footing, knowing but too well what would be our fate if we sunk in the softer portions of the snow in the midst of this wilderness of ice. At length we reached the ice-hill, where we had bivouaced the night before, and found the Kashgar caravan taking shelter behind some rocks from the fury of the storm. Our horses had the greatest difficulty in taking us up the *Col*. They had suffered much in the course of the journey, and, one and all, bore bloody marks of their frequent falls, and of their struggles to climb the icy steep; so severe, indeed, had been their exertions, that abortion had been brought on in several of the Cossack mares. It was night when we reached our old halting-place at the foot of the northern slope of the *Col*, where we found Captain Betsonoff and his party awaiting our arrival.

After giving the horses a longer rest than usual, we performed 26 *versets* on the following day, reaching Yudeyoughi, where we bivouaced. Before reaching this spot, whilst on the Khan-Yalaghi plain, our attention was attracted to some jets of smoke issuing from the ground, where by no stretch of imagination could a fire be supposed to have been kindled. The clods we turned up were alight, and continued to burn when flung into the midst of the snow at our feet. Some samples of this earth were submitted to analysis after my return to St. Petersburg, and proved to be an admixture of argillaceous earth with sand and lime, impregnated with an organic substance resembling *humus*, and containing small crystals of *pyrites*. Spontaneous combustion had, no doubt, been caused by the decomposition of the pyrites. The occurrence of this description of earth on the Thian-Shan range would encourage the supposition that beds of lignite may exist there.

On the 19th (31st) October, I directed Captain Betsonoff to take back the Cossacks whose horses had suffered most to the Thian-Shan post, whilst I, with the remainder of the party, made an effort to ascertain if there really existed, as I had heard, a direct communication between the Muzart-Pass and the valley of the Aksu.

At the Cossack advanced post, six *versets* from the northern entrance to the Muzart Pass, we turned eastward in a narrow valley, of which the passage was seemingly barred by a steep and rather lofty mountain. Nothing was there to lead to the supposition that any communication existed with the opposite side, and the Cossacks

affirmed that the only route lay over the summit. So steep was the slope that we were unable to keep our saddles, and were obliged to dismount and lead, plunging at every step into deep snow. Arrived at the top of the first slope, we found the mountain was in ridges, and that we had a succession of fresh ascents to climb. At last the summit was reached, and it became evident that here, at least, there was no communication between the valleys of the Yurten-Muzart and the Aksu. The panorama extended from the valley of the Tekes to the Thian-Shan range, whilst far away to the westward, toward Khan-Tengri, its austere front dominating all other summits around. I availed myself of the opportunity to take a compass-bearing of Khan-Tengri, having previously taken another at Kainac in the Tekes valley, the meridian of the Kapkak Pass. My observations showed it (Khan-Tengri) to be 23 *versts* south of the Muzart Col, and 39 *versts* west of meridian of the Muzart Pass. These data are merely approximate, as they depend upon a base determined by chaining alone, in which it was often necessary to carry the measurement over the summits of high mountains. This was my last observation in the Muzart Pass. It now remained for us, as speedily as possible, to make the Thian Shan post dimly visible in the Tekes valley at our feet. But the descent was by no means easy, and night fell whilst we were still on the steep northern slope, in the midst of a thick forest. As it was clearly impossible to reach the valley that night, we camped out once more in the deep snow, on the mountain side; and on the morning of the 20th of October (1st November), our guides discovered a tolerably easy path, and we returned to our detachment at the Thian-Shan. And thus terminated my expedition, which had occupied altogether the space of eight and a half days. I cannot say that I feel perfectly satisfied with the results of my trip. I had hoped to have gathered a more abundant crop of observations from the southern slope. But the presence of a Kashgar picquet in the immediate neighbourhood of the col, and the scarcity of forage, compelled us to retrace our steps or to incur very grave risks. Still the excursion sufficed to confirm the fact of the existence of extensive glaciers on the southern side of the Thian-Shan, and also to show the extreme difficulty of the Pass, thus demonstrating the truthfulness of the Chinese accounts, whose fidelity we are only just beginning to appreciate.

THE BESSEMER-CABIN, AND ITS APPLICATION TO SHIPS OF WAR.

There have, of late, been many tokens that the long postponed question of the "Channel passage" was approaching a stage in which action would take the place of discussion; and among the

various schemes put forward recently, none have been received more favourably than that for steamers carrying saloons on the "controlled suspension" principle which Mr. Bessemer advocates. It is but natural that any plan having for its object the avoidance or the alleviation of the pangs of sea-sickness should find favour with the general public; and Mr. Bessemer's invention has secured besides the support, more or less qualified approval of many naval and professional men. So far as experiments with a model, fitted on shore, can furnish evidence in its favour, the principle has already been tested with complete success; and if the Company should be formed which has been projected, no long interval need elapse before the plan is tested in a ruder fashion and on a larger scale. We wish the attempt every success, and most heartily join in the general condemnation of the present Channel service; but, at the same time, it cannot be admitted that the question has yet ceased to be experimental in many of its aspects. Many persons are inclined to the opposite opinion, and would have us believe not merely that the Bessemer-saloon in the Channel steamers will prove an unqualified success; but that the same principle of controlled suspension is to be most influential in war-ship construction. It has even been asserted that so potent will be this influence, that a dead-stop should be made on works in progress, exhaustive experiments being carried out with vessels armed on the new plan before anything more is done; and not merely is the method of mounting guns on ship-board to be changed, but the ships themselves are to be of novel type. A further reconstruction of the fleets of the world is, in short, according to these prophets to spring from the introduction of Mr. Bessemer's plan. It is a dangerous thing in times of rapid transition, like the present, to venture on forecasts such as these, and we have no intention of incurring similar danger by affirming the opposite view most positively; but still there are so many reasons for questioning the necessity for such radical changes, as well as doubts of the complete success of the new plan, that an apology is scarcely needed for refusing to accede to the side of the thorough-going reformers. It may, moreover, be of some interest if a brief sketch is given of the principle of Mr. Bessemer's invention, and of the vessels in which it is proposed to make the first trials of its efficiency at sea.

It is well known that the want of good harbours on the French side of the Straits of Dover constitutes the chief reason for the employment of steamers of very shallow draught, and as Mr. Bessemer and those with him propose to make use of these harbours, and not to incur great expense on their improvement or the construction of better harbours, the new steamers will not draw more than seven and a half feet of water. Their size will, however, be much greater than that of the present steamers, in order that the speed and behaviour may both be improved. Their

length is to be 350 feet, the breadth of the ship-proper forty feet, and that across the paddle-boxes sixty-five feet; the engines are to develop 4,000 horse-power, and it is expected that a speed of twenty miles per hour will be obtained, so that the passage will be made in not much over an hour. As the French harbours are very confined, and would not permit of these long vessels being readily turned, they are to be made double-bowed (both ends being alike) and to be supplied with a rudder at each end, so that they will steam equally well with either end foremost. The suspended saloon is to occupy the central portion of the vessel; there are to be four paddle-wheels, two before and two abaft the saloon, driven by separate engines; and for a length of fifty feet from each end the freeboard is intended to be very small, in order to minimise pitching motions. So much for the ships; a word or two respecting the saloon.

The system of suspension is very simple, and is intended only to neutralise the traverse, or rolling oscillations of the ship; the great length and low ends are to be trusted to make the pitching very small. The saloon, which is to be roomy and elegantly furnished, is carried by means of two longitudinal trunnions, one at each end; these forming, as it were, the axis about which it would turn, were it left free, when the ship was rolling. No difficulty will remain in understanding the mode of suspension when it is said to be identical in principle with that of a swinging-cot, only the saloon is not left free to move like the cot, but is kept under control by means of hydraulic apparatus. Mr. Bessemer's intention is, in fact, to keep the deck of the saloon perfectly level in the transverse direction, no matter how much the vessel may roll; and for this purpose the person operating with the hydraulic apparatus is enabled to watch a spirit-level attached to the saloon, and to bring the power to bear in the proper direction for preserving the upright position of the saloon. Of the entire success of the mechanical arrangements involved in the controlling apparatus there can be no question; Mr. Bessemer is distinguished already by his ingenuity in planning similar apparatus, some of which has been brought into use in connection with the manufacture of steel by the process which bears his name. But the real difficulty of the problem does not lie in the mechanical arrangements, nor would it be likely to do so even if they were complicated by an attempt to apply similar controlling power to extinguish pitching oscillations as well as rolling, as has been contemplated by Mr. Bessemer, the trunnion suspension then giving place to "gimbals," like those of compasses. The critical features of the scheme are found elsewhere, as will appear from the following simple considerations.

The motions of a ship at sea may be grouped under three great heads, viz., pitching, or longitudinal oscillation; rolling or transverse oscillation; and heaving, or vertical oscillation. All these

may be, and are generally, going on simultaneously, and their combinations have an infinite variety, giving rise to those oblique or twisting motions, which to the sea-sick passenger are so terrible. Besides these motions there is of course the actual motion of advance, but with this we have for the present no concern. For the sake of simplicity it may be further assumed that the length of the steamers, and the character of the waves ordinarily met with in the Channel, may prevent any extensive or trying pitching motions; the effect of which on the passengers will, of course, be made as small as possible by the central position of the saloon. There then remain the rolling and the heaving motions, the first of which Mr. Bessemer attempts to neutralise, the second being left unchecked.

Respecting the success of the attempt to neutralise the rolling, taking for granted the efficient action of the controlling apparatus, it would be idle to give a decided opinion before the trials are made. Two facts, however, should be noted. First, that from the very shallow-draught of the steamers, and their considerable proportionate beam, they will undoubtedly possess considerable stiffness and be likely to prove quick and uneasy rollers, although their rolling will undoubtedly be lessened by the deep bilge-keels it is proposed by their designer (Mr. Reed, C.B., late Chief Constructor of the Navy), to use. Second, that the use of a spirit-level to guide the person working the controlling apparatus is not likely to prove satisfactory at sea; because, as is well known to all persons acquainted with the theory of rolling, such a level would show not the true horizontal, but a varying direction approaching at every instant to parallelism with the slopes of the waves. Consequently if the spirit-level be retained, the saloon instead of remaining fixed, in a transverse sense, will be subjected to more or less rapid motions. It is not meant to be asserted, however, that the truly upright position of the saloon is that which would at all times be the best to prevent sea-sickness; nor, indeed, is it essential that a spirit-level should be used, as more trustworthy indicators might be readily devised if there were occasion. All that is desired is to call attention to a fact that has hitherto been overlooked in most published criticisms of the plan.

Even if the most sanguine expectations of Mr. Bessemer are fulfilled, and the suspended saloon is sensibly deprived of transverse oscillations, there will still remain the heaving motion, or vertical rise and fall of the ship and all she carries; and the experience of all who have suffered from sea-sickness may be confidently appealed to in confirmation of the view that the moment when the deck appears to be sinking from under the feet is that which is most trying. This bodily rise and fall must not be confounded with the vertical motion due to pitching, which in the present steamers is very considerable towards the extremities, but which has been assumed to be non-existent and will probably be

very small in the Bessemer steamers. The bodily heaving must take place in every ship floating amongst waves; its amount, of course, depending upon the comparative magnitudes of the ship and the waves. If the waves are very small the heave will be scarcely, if at all, perceptible; if they are comparatively large the vessel must lift to them or be swamped. In the particular case under consideration the steamers will probably have to encounter generally waves not of large proportionate magnitude, or of sizes and lengths approaching to those grand ocean waves which are met with in the Atlantic. The prevailing character of the sea in the Straits of Dover has, it is said, been kept in view in designing the steamers, and it is anticipated that the heaving motion will be small. Experience alone can decide upon this point, and the chief trial will obviously be made when the vessels are running broadside on to a swell of comparatively regular character and approximately uniform period. We sincerely hope that the vertical motion will never be great; should it prove considerable, the elaborate provisions for neutralising rolling are likely to afford little comfort to passengers with delicate stomachs. Apart from all other considerations, however, it may be taken for granted that the new steamers will in themselves be so much superior in speed and behaviour to the present vessels as to largely reduce the amount of discomfort and suffering; and the realisation of their speed and other promised good qualities is guaranteed by the eminence of their designer, Mr. Reed. It may be taken for granted that so much as is possible has been done to secure good behaviour, taking into consideration the extremely shallow draught and special requirements of the vessels.

Passing to the consideration of the proposal to make use of the system of controlled suspension for securing steady gun-platforms in war-ships, it appears necessary at the outset to remark that little of a definite character has been said respecting these "ships of the future," so that detailed criticism is impossible. It appears to be intended to mount the guns in such a fashion that pitching as well as rolling oscillations of their platforms shall be extinguished; and if this is done, it is supposed that accuracy of aim will be wonderfully increased, especially at long ranges and in heavy weather. Taking this for granted, vague allusions have been made to the changes in types of ships that must follow; but into the latter discussion there is no necessity to enter seeing that it is based upon assumptions that, to say the least, are questionable.

No experienced gunnery officer, as far as we are aware, has yet confirmed the accuracy of the opinion that existing ships are so unsteady as to exercise a seriously prejudicial effect on the fighting of the guns in heavy weather. On the contrary, published reports maintain the opposite view; and naval officers of eminence assert that inaccurate shooting in ships of recent design, both armoured

and unarmoured, is to be mainly attributed to other causes, the ships themselves being wonderfully steady. This is pre-eminently a matter for naval officers to decide; and there is every reason to believe that their verdict, on the basis of practical gunnery alone, would lie against the asserted necessity for providing suspended gun-platforms. The advocates of this policy have, at least in some essential matters, displayed a lack of knowledge although their tone is most authoritative. For example, the spirit-level has been recommended as a means for keeping the platforms horizontal, whereas, as was remarked above, it would fail to indicate the true level in a ship rolling among waves. Again, the bodily rise and fall of the ship, has been entirely overlooked, although it would undoubtedly be no inconsiderable motion in a heavy sea, and would bear no small proportion to the oscillatory movements of pitching and rolling. From the manner in which the steadiness of the suspended platforms is put forward it would be natural to suppose that only pitching and rolling could take place, and that the platforms would remain practically fixed, instead of having considerable vertical motion.

It cannot be admitted, therefore, that up to the present time the necessity has been demonstrated for abandoning the present methods of mounting naval guns, in favour of any other plan; and there can be no question but that the adoption of suspended platforms would involve many difficulties and possible dangers. Should it appear very advantageous to adopt them, the necessary arrangements would no doubt be made by naval architects; but the best devised scheme must unavoidably appear complicated and liable to derangement when compared with the present simple plan of securing the requisite steadiness of platform by means of proper proportions and forms in the ship herself. It is by no means improbable that a vessel carrying her guns on platforms such as those proposed, might be damaged by her own artillery, as the hull and platforms would have independent relative motions—the vessel rolling and pitching, as it were, about these platforms. Nor have the advocates of the change yet faced the structural and other difficulties which it would involve; but it would be idle to enter into points of detail so long as the necessity or desirability of adopting the new plan remains in dispute. So far as the discussion has gone it may be summarized in the statement that possible advantages are supposed by some persons to be derivable from the use of the controlled-suspension principle in war-ships; but that this opinion has not been generally adopted. There can be no doubt but that valuable evidence of the usefulness or otherwise of the principle will be obtained, if the proposed Channel steamers are built; and we can undoubtedly afford to wait for the results of that experiment, before seriously contemplating the abandonment of well-tried and successful methods of mounting guns.

THE GERMAN TROOPS IN FRANCE.

(Abridged from the "Bulletin de la Réunion des Officiers," of 5th and 12th October, 1872.)

During a rapid trip, in the year 1871, I visited Rheims, Reims, Nancy, Lunéville, Châlons, and Epernay, as the main points of the Prussian occupation in the East, and afterwards several villages, as Isle, Witry, Sillery, and Ay, the cantonments of small detached parties. I was enabled to make the following observations:—

In accordance with their notions concerning the quartering of troops, the Prussian Military authorities, in the face of the offers of barrack accommodation from the municipalities, prefer to leave their men billeted upon the inhabitants, as the system enables them to keep up amongst the troops the habit of cantoning in an enemy's country.

Where they have consented to withdraw a portion of the troops into barracks, it has been on the annexed conditions only:—

Accommodation for 1000 men shall be occupied by 500 only. Each man to be provided with a separate locker and key.

The quarters to be littered down in place of ordinary bed accommodation. The quarters to be whitewashed afresh, and to be clean in every respect.

In the towns the military authorities demand drill-yards, and are desirous of obtaining rifle-ranges as well.

The troops are frequently relieved in the garrisons, as many men as possible being brought from Germany to take part in the occupation, and to carry back its traditions to the fatherland. A medal commemorative of the war, and resembling that for Sadowa, has been issued to the German troops.

As the War department realizes a profit of one-third out of the sum paid by the French nation for the daily ration, this third is paid into the army chest for subsequent distribution in the purchase of maps, payment of gratuities, rewards for good shooting, and other like. This sort of "stock-purse" is of great utility to the army, and no doubts appear to be entertained as to its judicious application.

The Prussian army, as just stated, keeps up, as far as possible, the habits of the cantonment and the bivouac amongst its men. We might revert to this system in France. It would effect a great saving of labour to the soldiers and money to the country in two points claiming consideration. True, the system of billeting necessitates a rigorous discipline, but there is no reason why such should not prevail with us.

Amongst all the troops I met with, the day was passed in the following manner:—

5 to 11 a.m.	. . .	Drill and Instruction.
11 a.m. to 2 p.m.	. . .	Rest and meals.
2 p.m.	. . . . .	Roll-call.
2 p.m. to 5 p.m.	. . .	Liberty and evening meal.
5 p.m. to 8 p.m.	. . .	Drill and Instruction.

These hours were not rigorously observed in respect of the duration of the drills and exercises, the captains being answerable for the instruction of their companies, officers, non-commissioned officers, and men, and battalion-commanders, in like manner, for that of their battalions, these officers are permitted to make the arrangements they judge most expedient for the instruction of their commands. But it is a standing rule that every period of exercise shall be of not less duration than three consecutive hours, with ten minutes rest between every two hours. As a matter of fact, I observed that the troops came back to their quarters soon after 10 a.m. and 8 p.m. Under ordinary circumstances, therefore, we may say that the Prussian troops have six hours drill, in the exercise-ground, daily. According to this arrangement, of the fifteen hours from 5 a.m. to 8 p.m., nine are devoted to duty, and six, broken into two periods of three hours each, by a roll-call, to liberty, the latter applying especially to the case of officers and non-commissioned officers. The arrangement is not only judicious, but it gives a fair notion of the amount of daily labour imposed upon the soldier. It is in marked contrast with our two hours drill a day! Although it may be difficult in our regiments for an officer to find five or six consecutive hours for study, it will be seen that a French regiment at present has only 200 drills in the course of twelvemonths, whilst a Prussian regiment has 700 in the same time!

As I have before stated, in practice, the troops are dismissed about 10 a.m., consequently, the Prussian officers may be said to have daily seven consecutive hours to devote to their own concerns. Thus they have facilities for study, which are sadly needed in the French army.

I followed the troops to the field of exercise, and saw them perform :—

Recruit Drill. This drill is the basis of all military instruction; the instructors are therefore enjoined to use extreme energy and strictness with their pupils. The severity is carried to the length of blows, which are taken by the Prussian soldier, when under arms, without wincing, not being regarded as an insult at the hands of a superior. This is, of course, a matter of temperament. The chief feature in this drill is the instruction in marching.

"Troops that march well obey orders well," said Frederic the Great to his generals, and for this reason, when he desired to judge of a regiment he was accustomed to make it "march past in slow time," with all its officers in their places on foot, punishing most severely the smallest faults. It is a tradition religiously kept up in

the Prussian service, that marching is a potent element of discipline: in any case it unquestionably contributes to the exactitude of movement in the field, and on the march, and imparts to the troops a grand cohesive force. All movements are carried out energetically and with a degree of mechanical stiffness, which is exaggerated as much as possible, in the belief that the soldier will thus be made instinctively to retain the correct principle of each movement in spite of any increased freedom he may ultimately acquire in practice. This appears to me sound reasoning.

In Recruit drill a number of "extension motions," borrowed from the Swedish gymnastic system (Ling's) are employed. Here I would observe that it seems a great pity that Ling's system, which is a complete gymnastic course of physical education, should not be substituted in the French service for that of Amoros, which has had its day.

To sum up, in this preliminary portion of the soldier's training, the recognized principle is that arms shall not be placed in his hands until he is perfect in all corporeal movements—marching more especially. This part of drill is too much neglected in the French army. We may go too fast as well as too slow in military educational matters.

Recruit drill terminates with bayonet practice, which is performed more steadily, but also more thoroughly than with us, so that the soldier really acquires considerable aptitude in the use of his weapon.

Company drill offers nothing remarkable; subalterns and non-commissioned officers are in the ranks on the rights of their respective commands. This is perhaps a better arrangement than our serierfine rank, the utility of which is questionable. Marching is very carefully superintended.

They have a very useful method of "breaking off" the company at the "run" (*pas gymnastique*), and re-assembling it in line or column, by sections, half-sections, or squads, and by word of command of the company commander, and with the greatest possible speed. This movement is unknown in our platoon drill. It is very practical, accustoming the men to rally promptly round their officers in action.

The Prussian infantry formation is in three ranks. This is a mere question of extent of front. The troops are drilled in two ranks as well.

Skirmishing drill is not as good as ours. The skirmishers extend in "groups," in two ranks, at two paces distance, the rear rank men moving up into the intervals between their file-leaders. The principles of our method of skirmishing are good, excellent; it is only in their practical application that we have failed.

Battalion drill. In this drill the four companies of a battalion form eight platoons drawn up in three ranks, the company commander, on horseback, being on the right or in rear, according as

the battalion is in column or in line, of the two platoons constituting his company.

Absolute silence reigns in the ranks. All remarks made to the men are *absolutely sotto voce*. The words of command, on the contrary, are given *very* loud indeed. The battalion commander alone checks the men aloud, when necessary, but very calmly and temperately. After each movement he satisfies himself that each individual has done his part correctly, and is in his right place.

If a blunder is made, the culprit, officer or non-commissioned officer, is called out of the ranks by name. He marches out with "carried" arms, and with the most accurate cadence of step, and places himself six paces in front, and a little to the right of the battalion commander. "You were wrong in that movement," says the commanding officer; "now explain to me what you ought to have done according to regulation."

The delinquent repeats the passage of the regulations in question in a loud voice, and then resumes his place in the ranks, always with the same measured, well cadenced step.

There is no order to "dress" in line. At halt, the men, after fronting, take up their proper alignment, with their arms sloped on either shoulder, which is the normal position of the Prussian soldier at battalion drill. To facilitate dressing without word of command, the companies are halted one pace in rear of the alignment. This plan might be advantageously adopted in our system of battalion drill. In changes of position in column, all the guides move out to take up the covering at the caution—a very good method.

In column the platoon commanders are on the directing flanks of their platoons, covered by the platoon guides.

In all diminutions of front the cadence of the pace is rigorously maintained, by which loss of distance is avoided. In other movements the pace is accelerated, but without running.

An excellent movement, which we might advantageously copy, is to deploy the four companies of a battalion, at intervals equal to, or greater than, the front of one company, according as circumstances require. It is analogous to our method of deploying a regiment in contiguous battalion columns. It is very useful in the field for covering a considerable extent of ground, as the front of a brigade or division, with a single battalion. Each company is covered in front by its own skirmishers, and acts independently, but according to some predetermined arrangement. The column is therefore covered, first by the company skirmishers, and then by the companies themselves.

A Prussian battalion in line, whether at the halt or in motion, forms double column and square by the single command: "*double column to form square*." The movement is executed very quickly, at the run; it is a thoroughly practical one, and a good test of well-drilled troops.

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They have also a way of forming square which strikes me as the reverse of practical.

The battalion is in double column of four divisions. The 3rd ranks of the 3rd and 4th divisions form a 5th division, and the 3rd ranks of the 1st and 2nd a 6th division, the men of the even divisions going round by the right flank, those of the odd ones by the left. The column closes to four paces distance on the leading division, the 6th division facing about as soon as halted, to form the rear face, and the central divisions wheeling outwards as many files as are needed to form the side faces of the square. The movement is executed with great rapidity, at a run. It is much more complicated than our square against cavalry; but it is only fair to state that I have seen it executed, by different battalions, with great exactitude. This rapidity of execution is due to the scrupulous attention required from officers and soldiers alike in all movements.

I was present at * * * at a reconnaissance executed by a couple of battalions, a squadron of cavalry, and two guns. The column was massed on the walks of the public promenade, near the railway station. The commander, taking four troopers and eight infantry-men with him, moved off down one of the streets leading out into the country. Arrived at the last house, he placed a sentry on either side of the street, and then despatched, at a gallop, a dragoon to the front, another to the right, and a third to the left. When these men had accomplished a certain distance, they halted, and examined the horizon. One of them then returned to the commander to report, being replaced by the fourth trooper. In their turn the other videttes came in to report, and were replaced in like manner, so that there was always one upon three several points of the horizon. The commander then moved up into the line of videttes with his six remaining infantry-men, who extended as skirmishers, and took post under cover. A few seconds afterwards the commander sent three of the infantry-men to the right and three to the left: they moved on, with every precaution, until they reached some small patches of trees, went through the form of scouring them, and took post under cover on their skirts. A trooper was then sent back into the town for the squadron, which came up at a gallop over the open ground into the line of videttes, and sent out fresh scouts in advance. The infantry followed, the guns taking post in the interval between the battalions, as soon as the latter deployed. At a signal from the commander, the guns moved at a gallop to the wood on the right, took up a position on its skirts, and opened fire. The infantry turned off to the right and left to occupy the woods, the movement being masked and covered by skirmishers. As the ground did not permit of a further advance, the commander visited every point of the position in succession, correcting any errors that had been made, and then gave orders for a retreat. The cavalry came in at a gallop; the guns then retired first, followed by the infantry in echelon, firing. The movement was executed with

remarkable precision—the firings especially—and much more deliberately than the advance. It terminated at the entrance to the town.

The commander then called out the officers, and explained to them the nature of the operations, the officers, in turn, offering their observations thereupon. All were with their swords “carried.” This occupied about five and twenty minutes. The infantry, meanwhile, remained under arms in their ranks, and the cavalry and artillery mounted. Not a single man fell out, although the movements had occupied two and a half hours.

But of all the varieties of instruction that came under my notice, I was most struck with the theoretical instruction in musketry, which is most sedulously attended to.

Each company has its own materials, which are much superior to ours and kept up with the greatest care. Each individual soldier is most carefully taught by his superiors, beginning with the corporal of his squad, then by the serjeant, next by the officer of his platoon, by whom he is brought, when sufficiently advanced, before the captain of the company. The latter has to render a strict account of the instruction of every man in his company. Any man not considered efficient begins again at the bottom. The course of instruction, consequently, lasts nearly through the year.

The soldier is not allowed to fire with ball until he is well up in the theory of rifle shooting, and has been frequently exercised in judging distance. By the assiduous care bestowed on this branch of training, the fire of the Prussian troops, during the late war, with a weapon not one-third as good as ours, was pretty nearly equal in its effects. It is a fact that the majority of our men had not the faintest notion of rifle practice.

A noticeable feature in the Prussian army, is that military instruction is given by the captains of companies alone; neither the adjutant nor the musketry instructor interfere therein; but, nevertheless, the results are uniformly excellent.

We are therefore led to conclude that every Prussian captain must be an accomplished soldier, thoroughly versed in both the theory and the practice of his profession, having, withal, a profound sense of duty impelling him to the scrupulous fulfilment of the same; and that this knowledge, theoretical and practical, and this high sense of duty, he imparts religiously to his inferiors. This is the style of captain we want in the French army, and, *if sought aright, he is to be found.*

But, in spite of the admitted superiority of the Prussian system of instruction, as a whole and in its various details, I am happy to think that we have nothing to learn from it in the shape of theory and regulations. It is in *practice* that we fail, and it beloves us to acknowledge the fact with a view to its speedy amendment, in place of scattering accusations and recriminations broadcast around us.

I have also learned that a large number of Prussian officers have

been sent into all the occupied Departments to prepare topographical and statistical reports—to serve, as I have been told, for the compilation of a general map of the thirty-three invaded departments, to be published with the official account of the war of 1870—71.

It is believed that this map, which doubtless will be executed at Leipsig, will be a cartographical *chef-d'œuvre* carried to the highest pitch of perfection. The map will be supplied to the Prussian army at a very reduced price. A copy of the whole work prepared by the staff will be given gratis to every officer, non-commissioned officer, and soldier, who has supplied information used in its compilation.

The effect of a work of this description on the patriotic spirit already so strong in Germany needs no comment.

Such were the impressions I acquired in the course of my late trip.

ARTILLERY ORGANISATION.

It seems to be generally admitted that reorganisation is required in the Artillery, as we have recently had a Committee sitting to consider the working of the present system. The points which appear to require consideration are, (1) the brigade system as it now exists, (2) the localisation of stores, and (3) the formation of reserves for the field artillery, and the utilization of the reserves now existing by the garrison artillery.

The result of the inquiries of the Committee on Artillery Organisation has taken the form of a Report by the Adjutant-General of the Army, by which it appears that a determination has been arrived at to adhere to the brigade system in general, but to adopt such modifications of it as are suitable to the present requirements of the service. The Report says, "on most points considerable difference of opinion exists, but, on the other hand, there is a general unanimity as to its being undesirable to abandon a system which, notwithstanding certain anomalies, has been in operation since 1859, without any real breakdown, and without any unanimous suggestion being submitted for the substitution of one on a better principle . . . the objections represented arise more from certain anomalies in detail in consequence of the necessarily scattered stations of batteries . . . than from any real difficulty in the working of the system," &c.

Now, all the difficulties or anomalies of the present system appear to arise from the unwieldy size of the brigades. What then is the most convenient number of batteries to constitute a brigade? Following out the organisation of a battery of six guns or three divisions, it would seem that six batteries or three

divisions would be the proper number for a brigade, and this number appears admirably to suit our requirements. It is small enough to render the Indian relief easy, and to adapt the brigades to the military districts, as we propose to do hereafter, and it is also suitable to the tactical connection which should exist between the artillery and a division of an army. A pamphlet has lately appeared in Germany on the "Separation of the Artillery," and "the Field Artillery as part of a Division of an Army" by O & M, and which is said on the whole to correctly represent the feeling of the German artillery.* It is there recommended, that instead of the present system of divisional and corps artillery, the whole of the artillery should become divisional, "that the field artillery be divided into regiments corresponding to the number of divisions" (army divisions.) "The necessity of placing the field artillery under the division has been already sufficiently demonstrated. The present connection of the field artillery with the army corps . . . is not satisfactory. The division is the first statical unit for all three arms; its commander must therefore be acquainted with, and have command of all three arms in time of peace." Further on we find, "The easy and natural way in which the contemplated organisation permits of a transition from a peace to a war formation, is one of its most essential advantages. Hitherto on mobilisation being promulgated, the intimate union of the regiments of field artillery was entirely destroyed. The artillery of each corps was split into three parts quite distinct from each other—two divisions of division artillery and the corps artillery. The same disadvantage must necessarily occur if the former are placed under the army corps and not under the division in time of peace. This destruction of all internal organised connection should be just as carefully avoided for artillery as for the other arms. If, on the other hand, the artillery forms part of a division in peace, then, on the mobilisation being ordered, its whole organised connection remains perfectly undisturbed." There are other advantages enumerated, such as the simplification of the columns of route where divisions proceed by different roads. Now there is no reason why the division should not be with us as it always has been, the tactical unit, and the artillery brigade become essentially part of a division. In each brigade there would be a divisional reserve of twelve 16-pounder guns, the remainder of the brigade being 9-pounders, and if it was desired to produce a great effect on any one point, the reserve batteries could be easily collected for the purpose, or what would be more advantageous, ordered to concentrate their fire, and they would thus fulfil the part for which the corps artillery is intended. At the same time the general of division would have at his disposal, when acting independently, a force of thirty-six field guns, as

* Translated from the German by Captain Clarke, R.A., for the Royal Artillery Institution.

large a force as could be handled with any success by one commander. Each brigade would be under the command of a Lieutenant-Colonel, as indeed, is contemplated in the Adjutant-General's Report, and he would be the artillery adviser of the General of Division. In each district there would be a colonel on the staff as an inspector of field artillery, and another as inspector of garrison artillery, whose duties would be quite distinct. The inspector of artillery would be responsible for the condition of the batteries and their equipment during peace, but in war the brigade lieutenant-colonel would be directly responsible to the General of Division. In this respect too, would our garrison and field artillery be separate, but it would be impossible to separate them as the Germans contemplate doing, without causing great injustice, although, were it practicable, there can be no doubt of the advantage which would accrue. Neither would the more intimate association of the artillery with the other arms, in any way decrease its importance. One of the great drawbacks of the artillery has been the exclusion of its officers from army command from their supposed ignorance of the other branches of the service, and this has been caused entirely by their exclusiveness, as is allowed by the Germans. "By making artillery part of a division, and by doing away with its exceptional position, this would no longer be the case. There would be no reason why a general of artillery should be less fitted for the command of a division, than a general of infantry or cavalry."* We propose, therefore, that each brigade of field artillery at home should be associated with a military district, each district furnishing a division of all three arms complete in every particular. There would be six districts in England, one in Scotland, and two in Ireland.

The reasons for fixing the number of batteries in a field brigade do not equally apply in the case of horse and garrison artillery, and to save further changes than necessary, they might be left as at present. In future, horse artillery will very probably be altogether associated with the cavalry, and cease to form part of the artillery of reserve. The experience of the Germans in the late war has been that the horse artillery of reserve has never performed any services which could not equally well have been performed by the cheaper and more heavily armed field artillery. The Adjutant-General recommends (merely, apparently, on the ground of convenience and economy) that horse brigades should consist of five batteries, another brigade being revived, and that garrison brigades should have seven batteries as now. It is also suggested that the field brigades should have seven batteries, but it is just as easy to form fourteen brigades of six batteries as twelve brigades of seven batteries, with merely the additional

* Captain Clarke's Translation.

expense of the head-quarter staff of two brigades, which would be trifling. We should thus attain in this country a force of:—

Horse artillery, 3 brigades, 15 batteries, 90 guns.

Field „ 7 „ 42 „ 252 guns.

a total for home defence, or to attack an enemy abroad of 342 guns. It appears to be open to question whether this would be sufficient in case of a war with a powerful Continental nation. Allowing the moderate estimate of two and a-half guns per thousand men, we should only have artillery for 137,000 men, and could provide no artillery for our Volunteers or Militia. A good authority* has laid down that four guns per 1,000 men is not an excessive allowance for the requirements of modern warfare, although this has never been reached in any of the late Continental campaigns. Since the numbers of our regular army are small, we should render them of more value by giving them an overwhelming mass of artillery, an arm in which we excel all the nations of Europe. Neither should we be content to wait on the defensive only, for it is in our power of aggression that our defence will mainly rest. A great part of our auxiliary forces would never be able to take the field, and should therefore garrison our fortresses, leaving our regular army at liberty to act offensively or defensively, as might seem most desirable. As is contemplated in the *depôt centre* scheme, our Militia will form an excellent means of filling casualties in the line, and to be brigaded with them for home defence, whilst the Volunteers would be invaluable in holding fortresses and intrenched positions, while from want of manœuvring power they would be little use in the field. When the *depôt centre* scheme is carried out, there will be at home two militia battalions for every line battalion, one of which former would act as a reserve or recruiting *depôt*, while the other could take the field. For home defence therefore, the divisions would be of double strength in infantry, and would, in fact, be almost equivalent to army corps, the proportion of guns per thousand men being, however, halved. The power of an army in the field depends as much upon its powers of filling up the various casualties of war as upon its actual strength at the commencement of a campaign, and it has always been in this particular that British armies have failed. It is to be hoped, however, that when the *depôt centre* scheme is carried out, that we shall have ample reserves, and that our army in the field, though small, will never diminish in numbers.

In order, however, to distribute the field artillery as is here proposed, it must be more numerous than at present. It would seem that if we may more thoroughly organise our reserves of militia and volunteer artillery, we might reduce our regular garrison artillery. And we may here remark that volunteer artillery can never be of any use in the field as we at

* “Modern Warfare and Modern Artillery,” by Colonel Macdougall, p. 125.

present see them at Volunteer reviews; and they should at once be abolished as field artillery. They may, however, become very efficient garrison gunners if properly instructed. We shall require in all, nine field brigades; six in England; two in Ireland; and one in Scotland; and in order to obtain these we propose to convert our garrison brigade at home, and one in India, into field artillery. The nine districts to which these field brigades would be attached, would, we suppose, each be capable of providing a force of 10,000 infantry (liable to service abroad) and constituting a division of an army. It is laid down that a British division shall consist of two brigades of infantry, or six battalions and a rifle battalion, or, in all, 7,703 infantry; but it would seem that the staff required to handle a division of this size would equally well deal with a bigger one of, say, 10,000 infantry. If, too, we take the division as the independent tactical unit, we must make it stronger than at present. A division of three brigades is also more suited to the formation that would usually be adopted in action, *i.e.*, two brigades in contact with the enemy, and one in reserve; this is, of course, independent of the general reserve held at the disposal of the Commander-in-Chief. According to the arrangement we propose, a division then would consist of three brigades of three battalions each, one rifle battalion, or 10,990 infantry, one regiment of cavalry, one battery of horse, and six batteries of field artillery, and also pontoon and bridge trains. With every three divisions there would be a cavalry brigade of four regiments and two batteries of horse artillery. Our offensive army would thus consist of 98,910 infantry, twenty-one regiments of cavalry, and 414 guns. According to the new *depôt* centre system, the actual number of line battalions at home will be seventy-six, or 83,524 men, when raised to a war footing. To raise our divisions to the requisite strength for service abroad, we should have to avail ourselves of the twenty-two battalions serving in the colonies, exclusive of India, filling their places with militia battalions.

We require then, nine field brigades, and by converting the garrison brigades previously mentioned, obtain fourteen batteries or two brigades, and two batteries over. With these two batteries, and by creating four new ones, we propose to form a brigade of field artillery of the Guard, which would become the divisional artillery of the home district, and would not be liable to colonial service. We should thus have in this country horse artillery, fifteen batteries, ninety guns field artillery, fifty-four batteries, 324 guns.

We propose to carry out the Indian reliefs by a system of "twin-brigades," the one being in India, and being periodically relieved by the other at home, and both being intimately associated together and recruited from the same district. All recruits for the brigade in India would be trained at the local head-quar-

ters, which would become a brigade dépôt. The system of supplying the Indian drafts from the dépôts, as at present constituted, and from batteries at home, is far from satisfactory. In the dépôts the number of men is so great, and the proportionate number of non-commissioned officers is so small, that it is quite impossible to give recruits sufficient training to render them fit for a service battery. Neither is it a good system to have such a large number of young soldiers together with such inadequate means of exercising a strict supervision over them, and of enforcing thorough discipline. Again, by the present system of recruiting promiscuously through the dépôts for all batteries, whether horse, field, or garrison, it is impossible to exercise much care in the selection of men likely to prove good soldiers, and many a man is deterred from enlisting from the uncertainty of his fate; he may fall to a battery at a pleasant country quarter in England, or to one in the West Indies or India. It is from this cause that some of the household regiments and of the cavalry obtain better men than the artillery. The advantages of local recruiting are so well known, however, and recognised in the new scheme of army reorganisation, that it is hardly necessary to recapitulate them. It seems, however, from the report on the dépôt centre organisation, that the dépôts will remain at Woolwich. At para. 59, we find "The dépôt centre for the training of recruits for the Royal Artillery stationed abroad—about one half the force—is, and in all probability, must continue to be, Woolwich." Why, may we ask, is one-half the artillery to be recruited on a worse system, and from worse men than the other half? No one at all acquainted with the present system can fail to see its disadvantages, nor could a worse locality than Woolwich for the training of young soldiers well be found.

The recruits would be trained by non-commissioned officers borne on the strength of the home batteries for that purpose, those for India at head-quarters, those for home service with their own batteries. The brigade in India being intimately associated with the brigade at home, the very objectionable practice of sending the worst men to the batteries abroad would be avoided.

We now come to the distribution of batteries under the proposed scheme. We have now in India three brigades of horse artillery, of five batteries each, which would remain precisely as present, but we have to provide each of them with a "twin-brigade" at home. There are now in this country two brigades of eight batteries each, one more battery than we require. The five batteries last returned from India, and now in "B" and "C" brigades would form the new or "F" brigade. We should have then brigades as follows:—

"B" brigade, head-quarters at Aldershot, and two batteries, with the remaining batteries, at Exeter; two at Coventry;

one twin brigade in India; "A" head-quarters at Peshawur.

"C" brigade, head-quarters at Woolwich, two batteries; at Canterbury, Christchurch, and Dorchester, one battery. Brigade in India.

"D" (now in course of relief) head-quarters Bangalore.

"E" brigade, head-quarters, Sheffield, two batteries; at Preston, York, and Birmingham, one battery. Brigade in India.

"F," head-quarters Lucknow.

The stations here are chosen chiefly for convenience, and to preserve old artillery stations, the batteries of a brigade being grouped together as much as possible. There would be an increase of one lieutenant-colonel and the staff of a brigade, A reduction of one battery and ten full colonels, who, however, would be employed on the staff.

Taking the field artillery into consideration, we have now at home four brigades of ten batteries, and the 22nd brigade of seven batteries, which it is proposed to convert into Field Artillery.* We should thus have forty-seven batteries, and we want fifty-four. In India we have one field brigade of eight batteries; five brigades of seven batteries, and the 13th garrison brigade of seven batteries, which it proposed to convert into field artillery. A total in India of fifty batteries, whereas we only require forty-eight to correspond with home brigades. The stations of brigades at home would be chosen as far as possible from those now occupied by the artillery. The field brigades would then be as follows:—

Home District.—Field artillery brigade of the Guard. Head-quarters, London, two batteries; Aldershot, two batteries; Windsor and Hounslow, one battery.

South Eastern District.—1st brigade, head-quarters. Woolwich, two batteries; Shorncliffe, two batteries; Chichester and Sheerness, one battery. Brigade in India, the 8th head-quarters, Lucknow.

North of Ireland District.—4th brigade, head-quarters, Dublin, three batteries; Newbridge, two batteries; Athlone, one battery. Brigade in India, the 9th, head-quarters, Ahmedabad.

Southern District.—11th brigade, head-quarters, Salisbury, two batteries; Hilsea, two batteries; Trowbridge and Southampton, one battery. Brigade in India, the 16th head-quarters, Barrackpore.

Northern District.—14th brigade, head-quarters, Newcastle, three batteries; Northampton, one battery. Brigade in India, 18th brigade, head-quarters, Kirkee.

* Although the practice of converting garrison into field artillery is an extremely bad one, it is here proposed merely to avoid the expense of creating new *cadres* for batteries and brigades. When once the quantity of our field artillery has been definitely decided, any further change will be unnecessary, and the two branches will be kept as distinct as possible.

Scotland.—22nd brigade, head-quarters, Edinburgh. One battery, with batteries, at Leith Fort, Glasgow, Aberdeen, Perth, and Stirling. Brigade in India, the 19th, head-quarters at Meerut.

Western District.—24th brigade (new), head-quarters, Gloucester, two batteries; Devonport, two batteries; Bristol and Newport, one battery. This brigade is made up of G, H, I, K, batteries, late 1st brigade, and G and H batteries late 4th brigade. Brigade in India, the 20th Secunderabad.

Eastern District.—25th brigade (new), head-quarters at Warley, two batteries; at Ipswich, Norwich, Colchester, and Lincoln, one battery. The batteries of this brigade are I and K, late 4th brigade, and G, H, I, and K, late 11th brigade. Brigade in India, the 13th brigade, head-quarter, Mean Meer.

South of Ireland District.—26th brigade (new) head-quarters, Ballincollig, two batteries; at Clonmel, Kilkenny, Fermoy, and Limerick, one battery. This brigade is made up of G, H, I, and K batteries, late 14th brigade. No. 7 battery late 22nd brigade, and No. 7, battery, late 13th brigade. Brigade in India the 27th (new), composed of the late G batteries of the 8th, 9th, 16th, 18th, 19th, and 20th brigades.

We have then a total increase of the staff of five brigades and five new field batteries. But, at the same time, we have a reduction of one battery of home artillery, and by doing away with the depôts at Woolwich, we get rid of five depôt batteries of home and field artillery, and a staff equal to that of two brigades. So that we may say that we make a reduction of one battery, and an increase of three brigade staffs. Each field brigade would require three lieutenant-colonels, so that we should require ten more than we have at present, while we should reduce ten full colonels from the command of brigades. As, however, we should require seventeen colonels, inspectors of districts in England and India, we should only effect a reduction of three. A minor point of organisation not worthy of notice is, that the gunnery instructors should be on the staffs of brigade, and not borne on the strength of batteries as at present.

With regard to the second point to which we would call attention, great advantages are to be gained by the decentralisation of ammunition and stores. At para. 55 of the Report on the Reorganisation of the Army, we find, "the issue of stores has been decentralised to such an extent that there will be in each district a central issuing store, from which the troops of the district could be equipped either for training purposes or autumnal manœuvres; or if assembled to form brigades, divisions, or corps, for active service." It seems then that it is intended to profit by the experience of late wars, but as yet we have not seen any steps taken to make the necessary arrangements, and as to the extra equipment of the field artillery, it is not even mentioned. Every word that has been written against the centralised system of France,

applies equally well to ourselves. "Military administration was in the highest degree centralised, and hence, as well as by charging it with judicial duties, overwhelmed by business. Army corps and divisions had no *intendance* in peace, and were thus deprived of its mediatory functions. As a consequence, the equipment *matériel* was concentrated at a few places in time of peace. Stores of transport carriages were accumulated at Vernon and Chateauroux, dépôts of camp equipment had been formed principally at Paris and Versailles. Rapid distribution to the different corps from these dépôts, on a general mobilisation, was a work of extraordinary difficulty.*" In no branch of the service is this localisation of stores more necessary than in the artillery, an arm that requires an enormous amount of equipment which cannot be created or even distributed in a hurry. At the same time, all the necessary stores can, with ordinary care, be stored for any length of time without deterioration. A distinguished French artillery officer writes:—"The most common prudence demands, therefore, to reject all arrangements which could cause delay. One of the practices which it is most essential to abandon, is the storing of the carriages for field service in the arsenals. There should be about 20,000 of these carriages for the artillery alone. It is a folly to continue to pack them in piles which cannot be taken down without the assistance of a great number of workmen and a month's delay. On the contrary, it is absolutely necessary that the batteries should have their matériel complete, and ready for service at their own disposition, and at hand.†" It is further pointed out that the present use of iron carriages by the artillery renders storing easier, as they can be exposed to the air without decaying, and can be preserved by an annual touch of paint. We, in England, have not got so far even as packing these things in piles. They do not even exist. Where, may we ask, are the waggons to form the reserve ammunition columns for the artillery or for transport purposes? Almost every available machine on four wheels was taken for our last peace manœuvres in order to put less than 30,000 men in the field. What would be the result were war suddenly declared and our present force of fifty-six batteries had to be equipped from Woolwich, supposing even that the stores are in existence there. They would require, approximately, 600 sets of horse appointments, 3,000 double sets of harness, and about 900 waggons, spare carriages, &c., making no allowance for corps reserve columns. They would require also about 30,000 rounds of gun ammunition, and near one million small arm cartridges. What confusion, hurry, and delay, must necessarily attend their issue, when, in addition to these

* German official account of the Franco-German war, 1870-71. Translated by Captain Clarke, R.A.

† Précis of report of Colonel Barron Berge, of the French Artillery, upon the British 9-pounder muzzle-loader gun, translated by Lieutenant-Colonel W. E. M. Reilly, C.B., R.A.

things the Royal Arsenal has to supply all the regimental transport for the cavalry, infantry, and control department. In not adopting a system of localisation of stores, we cannot even plead our favourite excuse of expense. If we are to have batteries they must be ready for war, and must have equipment somewhere, which may just as well be distributed at different points in the country where it is wanted, as at Woolwich where it is not. It may seem unnecessary to recapitulate arguments on this point, when we are assured that steps will be taken to set on foot a better system. But this is a point on which we cannot afford to delay. The efficiency, the existence of our army depends upon it, and its importance should be continually urged, and kept before the public until the necessary reforms are carried out. We have the good fortune to profit by the dearly bought experience of our neighbours, and it will be our own fault if we throw our advantage away.

The stores belonging to the war equipment of a battery should be at hand at the station where the battery is quartered, and actually under the charge of the major of the battery. The ammunition, waggons, &c., of the divisional reserve columns should be at the brigade head-quarters, and those of the second reserve at a subsidiary arsenal. The stores required for the annual supply of batteries should be sent to the brigade head-quarters from the manufacturing centres according to a yearly estimate. Here they should be in charge of a commissary of artillery stores, who should be an artillery officer under the Control department, and who would issue supplies as required to the batteries.

This officer, on mobilization taking place, would assume the command of the divisional reserve ammunition column, and during peace all the ammunition, waggons, &c., of the column would be in his charge. It appears only reasonable that artillery officers, who have all their lives been accustomed to deal with artillery stores, should have control over them in preference to those who are at present given charge of them, and have afterwards to be instructed in their use. By placing an artilleryman in charge of stores, and in direct communication with the district controller, a great advantage would be gained, and any very radical change in the present system would be avoided.

It would also seem to be easily practicable and of great advantage to contract with manufacturing firms in different parts of the country to supply many of the stores for the army which now come from Woolwich. Were our great manufacturing centres in the habit of supplying ammunition, harness, &c., in peace, not only could we obtain these articles much more rapidly in war, but we should avoid the utter annihilation which would now ensue were our only arsenal to fall into the hands of an invader. These

manufactories would, in fact, become subsidiary or second-class arsenals.

To come to the third point that we have mentioned, it appears that in the proposed plan for army reorganisation, no steps have been taken to provide any reserve for the field artillery. It has been recommended* that the former war establishment of a battery should be reduced by taking away the second line of waggons and spare carriages, and forming them into a divisional ammunition reserve, a second ammunition reserve being appointed for the Army Corps. This most rational suggestion will probably be adopted. It seems, however, that the war establishment proposed is rather small, unless there is some regular means of supplying casualties; neither does it appear how the men who belong to the ammunition reserve are to be obtained. We propose that there should be three reserves—the battery reserve, the divisional reserve, and the army reserve. The battery reserve would be localised at the battery station, and would be sufficiently large to raise the battery at once to its war footing. The men of this reserve would be those who had previously served in the battery, and had been passed in turn into the reserve, receiving a pension of sixpence a day. No man should be allowed to remain in the battery reserve after twenty-one years service. The peace establishment of a battery of Horse Artillery would be a total of 159, including seventy gunners, and fifty-six drivers. The War or Indian footing would be a total of 224, including eighty-nine gunners and ninety-five drivers, consequently a battery reserve of sixty-five, including nineteen gunners and thirty-nine drivers. It would be impossible to create a reserve for the Horse Artillery, except by passing men through the ranks, and consequently the battery reserve must be large enough to allow for the men who are to accompany the reserve ammunition column. When a battery arrived near its turn for Indian service, it would have gradually to be raised to the Indian footing, as is the case with regiments now next on the roster for foreign service.

A field battery would have a peace establishment of 159 officers and men, including sixty-six gunners and fifty-six drivers. A war or Indian establishment of 183, including seventy-nine gunners and sixty-five drivers, consequently a battery reserve of twenty-six, thirteen gunners, and nine drivers. Neither field or horse artillery would have more than three waggons horsed in peace time.

The divisional reserve would consist entirely of men (gunners and drivers) belonging to the Militia Reserve, and should be instructed entirely in the use of field guns and ammunition. In war they would accompany the divisional reserve ammunition

* Notes on the supply of ammunition to an army in the Field, by Col. W. E. M. Reilly, C.B., R.A.

column, and form a *depôt* for the supply of casualties in the batteries. They should have officers from the Royal Artillery.

The men of the Army Reserve would also be supplied by the Militia Reserve, and by men of more than twenty-one years' service from the service batteries. Only a sufficient number of gunners and non-commissioned officers would be required to take charge of the ammunition, and of drivers to drive the waggons. There would be three army or second reserve ammunition columns in Great Britain, one for every three divisions. They would be stored at the arsenals, say Woolwich, Sheffield, and Newcastle.

A divisional reserve ammunition column would consist of 543 officers and men and 454 horses, including 213 gunners and 276 drivers. It would be under the command of a major assisted by a captain, three subalterns, and a quartermaster. There would be thirty-six gun ammunition waggons, nine small arm ammunition carts, fifteen small arm waggons, nine general service, and six spare gun carriages. There would be attached twelve horse artillery ammunition waggons, with a quartermaster, serjeant, and the spare men of the divisional horse artillery battery.

An army reserve column would consist of 399 gunners and non-commissioned officers, 522 drivers, eighty-one artillery (16-pounder and 9-pounder) ammunition waggons, forty-nine small arm waggons, three spare gun carriages, six forges, three special forges, twelve general service waggons for rockets, men, and materials. This would be divided into three divisions, each division under a captain, and three subalterns, and the whole under a lieutenant-colonel.

All the drivers and gunners of the divisional ammunition reserve would have to be called out for one month's annual training. The most advantageous way of doing this would be to attach them by small numbers at a time to the service batteries during the winter months, in place of the regular drivers and gunners who might wish to go on furlough. Thus, during each of the six winter months, each battery would have eighteen gunners and twenty-three drivers attached for instruction. The battery reserve would be called up to do their training during the summer, probably during the embodiment of the local brigade of all arms, or for autumn manœuvres. The remaining five months would be devoted to the instruction of the battery drivers and recruits, and men for the Indian batteries. It would also be desirable to call out the reserve men of the ammunition reserve, and let them accompany their division during autumn manœuvres, as would be the case in war.

It appears that it is intended to more thoroughly organise the Militia and Volunteer Artillery, when the *depôt* centre scheme is carried out, and little therefore need be said on this point. There are, however, some points which it may be worth while to notice. The seven *depôt* garrison batteries now at Woolwich and Sheer-

ness, should be distributed at different stations on the coast, where there are heavy rifled guns mounted, with which the recruits and reserve artillery could be instructed together, each battery recruiting for its own district. The batteries of regular garrison artillery should be as far as possible divided, so as to be exercised in conjunction with the reserve artillerymen of the district, and every man, either Regular, Militia, or Volunteer, should be accustomed to use the same guns and ammunition that he would be called upon to use in war. The not uncommon sight of a squad of intelligent Volunteer or Militia gunners wasting their energies on an old 32-pounder smooth bore is really pitiable. We have in our reserves excellent material for the defence of our coasts, and it will be our own fault if we do not make a proper use of it.

The point, however, to which we wish to call particular attention is, that our army being small, we should at least make it as effective as possible, and make up for its want of numbers by providing it with a very powerful artillery. We have never yet seen a British army of 100,000 men in the field, but from the great results that have been achieved by much smaller numbers, we may fairly conclude that no nation could afford to disregard such a force. The fact is, however unfortunate it may be, that we do not believe in invasion, and until we have a great disaster, we shall not believe in it. It would be, however, unpatriotic on that account not to bring before the public points in which reforms are so urgently required.

MILITARY PRISON REPORT FOR 1871.

At a period like this, when the desertions are so many and the enlistments so few, we expected to have found in Major Du Cane's Report information, which, if it did not raise our hopes, would have lessened our fears as to the future of the British soldier. To say that we were disappointed is but a faint expression of our feelings after going carefully through the statement officially made by the Inspector-General of Military Prisons to the Secretary of State for War of the number of soldiers in confinement, their conduct, &c., for the twelvemonth previous to the 31st of March last. A more flagrant example of "How not to do it," in the matter of supplying important information to the public, it would be difficult to find among the many departments under Government which have to furnish reports. Usually the truth is hidden under so large a heap of figures and statistical tables that it takes a deal of trouble and time to sift out the few grains of wheat from the quantity of chaff that conceals them; but here Major Du Cane

with a frankness that might be commendable in a private individual, shows his complete disregard for the opinions of the Secretary of State for War, the Members of both Houses of Parliament in particular, and the public in general by sending out a report for the year, which on nearly every point of importance imparts no information whatever. Whether Mr. Cardwell approves of his subordinate's conduct, or whether he is entirely ignorant of the existence of the three halfpenny pamphlet addressed to him by his Inspector-General of Military Prisons is of little consequence, in comparison with the fact that a report, purporting to supply particular information, should be drawn up with such little attempt at lucidity.

In the Reports supplied by the Medical department of the army full information is given about every particular that it is necessary to know. If it is required, any one may ascertain which stations are the most healthy, as well as those that are the opposite, and so special is the intelligence furnished that the regiments most afflicted with particular diseases can be picked out with little or no trouble. Now it is precisely this description of information, in degree if not in kind, that Major Du Cane's Report should furnish. We ought at a glance to be able to find the regiment in which most men had been tried and convicted of drunkenness, as well that corps in which the least number of such offences occurred. In like manner this Report should inform us the regiments in which desertions abounded, those where the men were habitually breaking out of barracks, those where the greatest number of crimes, coming under the head of insubordination, were committed, and so on with all other offences. Again, not only the numbers of the men tried and convicted by court-martial should be stated, but the corps to which they belong, as well as the description of court-martial that tried them, whether general, district, or regimental. If these facts were made public—and there is no reason they should not be—we should get to the root of the evil, and once we could lay our finger upon the source, it would be easy to find the remedy.

The same remarks apply to the management of the prisons themselves. Formerly, when Colonel Henderson was Inspector-General, a table was given that showed the number of minor punishments inflicted by the governors of prisons, from which we could at once see those prisons that were well managed, as well as the others that were badly ruled. The undue prevalence of crime in either a regiment or a prison may always be regarded as an unmistakeable sign of the incapacity of the superior authority. The colonel or the governor may be a tyrant at heart, or he may be one of the most humane of men; but if the latter, it would be found on investigation that he left to others the power of enforcing discipline and carrying on the work instead of doing it

himself. To show more precisely what is meant, we will presently refer to the Military Prison Report of 1861, just ten years before. The prison authorities urge that to make imprisonment reformatory, it must be severe. The governor of Millbank states, in his last Report, that "It is difficult to state definitely what class of punishment will successfully meet the case of military prisoners under a short term of imprisonment, time is inadequate either for reformation or intimidation, and I think it will be found, as in the case of criminals under short sentences, 'that hard labour, a hard bed, and hard fare in separation' you have the most effective means of repression." This evidence, coming from one who had in his charge, in 1871, more than half of all soldiers convicted by courts-martial in that period, is significant of the treatment soldiers receive for trivial offences; and we mean to show how his system is more likely to foster crime in the army than to diminish it. First, we call attention to the fact that, at Millbank Prison during the year 1871, 2,075 cases of misconduct occurred among 2,239 prisoners. Next, we go back ten years and select the two prisons, Devonport and Athlone, wherein the greatest number of punishments by governors were inflicted. At the former 229 men received 434 punishments, and in the latter 250 men were punished 895 times. Now mark the result; in the same year there were 73 recommittals to Devonport, and not only recommittals in the ordinary sense of the term, i.e., having been in any military prison before, but every one of them had been previously in Devonport Prison. At Athlone there were 81 recommittals, 30 of whom had been in the same prison before. In contrast to these two prisons, we place Weedon and Cork. At the first named, 543 prisoners receive 36 punishments, and at the other 443 prisoners were punished 26 times during 1861. During the same period, and in the same prisons, the recommittals were 62 and 58 respectively.

It certainly appears as if our military prison system was intended to increase crime, not to lessen it, as nearly one-half of all prisoners confined in 1871 were punished either by flogging, dark cells, bread and water, and such like chastenings, for what, we must believe, was in most cases offences that the offenders could not help committing. One twenty-fourth of the number imprisoned were awarded 1,114 punishments, thirty-seven of them having been so corrected 114 times each. We put to the governors themselves the simple question, was one man of the 37 a better soldier after the infliction of the fourteenth punishment?—had one of those men improved either in character or condition after being twice seven times dark-celled or bread-and-watered? We are confident that at the end of the sentence each and all of these men, their condition was even worse than at first, and that they all returned to their regiments more depraved in mind and reckless in character than ever they had been before.

Millbank is considered now to be the model military prison. Curiously enough, wherever prisoners are most punished, is considered to be the model prison, as if cruelty and oppression were synonymous for efficiency and a system that led to the reformation of prisoners. The pet hard labour at Millbank is the Crank Tasks, A, B, and C. At the first a prisoner is exercised for eight hours daily, having, in that period, to turn the handle of the crank 14,500 times, or over thirty times in a minute. Every turn of the crank-handle necessitates a force equal to 14lbs., so that every turn a prisoner lifts, as it were $7\frac{1}{2}$ cwt., $22\frac{1}{2}$ tons hourly, or 180 tons daily. We have only to consider the fact that this has to be done for a certain time by every prisoner on his entrance to Millbank—by the weak as well as the strong—to realize properly the monstrous barbarity of the system. It may be the policy of our Liberal Government to kill our civil criminals by such means, but we most emphatically protest against our soldiers being put to similar torture. The army costs the nation too much money to have probably the constitutions of the best men in it thus sacrificed for no purpose whatever. We make use of the words, “probably the best men,” advisedly, for whoever has been in the field against the enemy knows that the happy-go-lucky scapegraces are never in the rear when the foe is in front. It is not the men with most good-conduct badges that volunteer for “forlorn hopes,” or that are selected by officers for scouts, or to perform dangerous duties. Not but what there are plenty of brave fellows so decorated, but they are the exception not the rule. More often they are like a private in the 15th Hussars, named Humphries, who was discharged about five years since on the highest pension it was possible for a man in his position to receive. Yet this man, during his whole 24 years of service had never done two hours sentry-go; and although his regiment was for years in India, he managed to remain at the depot until it came home. He used to boast that he had never done a guard nor ridden in the ranks at field, yet when discharged he had five good-conduct stripes, the medal for “long and faithful service,” and the accompanying gratuity; and there are many, we fear, like he in the service.

The governor of Millbank, in his Report, deprecates the use of “shot drill,” for no other reason than “it gives the prisoner open-air exercise for three hours a day in the association of those whose society he most covets;” or, in other words, he censures the soldiers for being so human as to like looking at their fellow-creatures. Surely he does not wish to make them mad, for none but madmen could feel otherwise than these poor fellows do. He continues, sorrowfully, “Shot drill is a great relaxation from confinement in a separate cell, and but few reports occur for misbehaviour;” as if the absence of reports was a matter for regret instead of being, as it ought to be in his case, a cause for thank-

fulness. A case, which comes before us as we write, tells the melancholy story of the kind of reformatory discipline carried out in Millbank far more forcibly than any language of ours could portray. "A man of the name of Alfred Braken, belonging to the 9th Foot, was convicted of desertion, and sentenced to 84 days' imprisonment with hard labour. When put to hard labour after his admission to Millbank, he complained of pains in his chest, and was examined by the medical officer, who reported him 'fit for duty.' On being taken back to 'hard labour' at the pumps, he was taken so ill that he had to be removed to his bed in the cells where he died."* On the inquest subsequently held on the body, the doctor of the prison said he had only examined the deceased for disease of the lungs, and, therefore, was not aware of his suffering from heart disease, the cause of death. We question if it is possible to examine any one for lung disease without the action of the heart also coming under the examiner's notice; but we have drawn attention to this case to show that in military prisons it is very little use for a soldier to complain of "pains in the chest" or anywhere else where there is no outward visible signs of their existence. Now even the most stringent disciplinarian will allow that an amount of "hard labour," either at the crank, or the pump, or shot drill, which may be severe punishment for one man, would to another be only a healthy recreation. For instance, to a strong, active man, an hour of such work would only be simple exercise, while to a very weak person the same employment would be torture of a very great degree; or as in Alfred Braken's case, death. Possibly the strong man would be the greater criminal, yet he who had offended most would get punished least.

If the punishments so strongly recommended and so strictly enforced by the prison authorities, were in the least degree reformatory, we would be the first to uphold them, but with the facts before us of the increase of the crime of desertion throughout the army, we must direct attention to the abuse of power so generally exercised over soldiers, who are dealt with as if their crimes were the most atrocious that could be committed against society, instead of being principally offences of the very lightest degree. And even in the worst of cases, we hold that governors have no right to assume that they are placed in these positions for the express purpose of making their prisons places of torture, as many of them from their reports appear to imagine; their duty we must tell them is not to torture, but to encourage; not to depress but to elevate; not to make good soldiers, bad ones; and bad soldiers, worse; but by humane and kind treatment cause one and all who come under their charge to feel that while being in prison is a disgrace, yet, that a few months' good conduct would clear all that

* The "Daily Telegraph," Dec. 12. 1872.

away, and it lay entirely with themselves whether or not they eventually became better and wiser men. The solitary punishments, the crank, the pump and the shot drill are all demoralising and hurtful to health, as well as useless; in fact, it would be difficult to imagine more unproductive occupations, and the wonder to us has always been, why, the prison discipline practised in Ireland under Captain Crofton has never been tried upon soldiers. Of its reformatory and remunerative character there is happily plenty of proof, yet in the face of all this, our soldiers are subjected to a worse discipline than convicts incarcerated at Smithfield and other prisons in Ireland, without their ever deriving one tenth of the benefits, either physically or morally, of the latter. The system introduced twenty years since with so much success by Captain Crofton, has for its chief element "hope." A prisoner knows that if he conducts himself well, his imprisonment will not only in time become easier but be considerably shortened in its duration. The first stage in the system is decidedly penal, the cellular imprisonment being considered deterrent. The second stage is the reformatory one by compulsory labour in association, the former however being limited to a short time in comparison with the latter. Now as this is the one most dreaded by our military prison officials we will put it in contrast with our model method, which having for its principal element the degradation of the soldier, its advocates are astonished at its results; forgetting that wise saying, "As we sow, so must we expect to reap."

The Irish system realizes the fact, that the two objects of punishment, to deter from crime and to reform, cannot be accomplished by one and the same mode of discipline; each as it were requires the particular kind of discipline suitable for its purpose. Isolated and in solitude at first, the prisoner learns to value the society of his fellow-creatures; a privilege which he knows will shortly be granted to him if his conduct keeps good. When that time comes he accepts it as a reward for his good behaviour, and finding that to a considerable extent he is trusted to talk as well as to work, he not only takes a pride in his work, but manages to curb his tongue, within certain limits, so that he gradually gains a mastery over his mind as well as over his actions which must lead to a reformation in his whole character. On the other hand, let us look at the soldier prisoner who is marched into Millbank. It is well known that solitary confinement blunts the feelings and hardens the character of those subjected to its influence, as surely as rust injures steel, or as fire consumes flax. Whenever a man gets accustomed to the nature of his punishment he becomes perfectly indifferent to it. Indifference is followed by callousness, and we conceive no greater evil could be imagined than, that a prisoner who entered the prison with fear and shame, should leave it indifferent, and with blunted feelings. If, therefore, the punishment for military offences is intended to be improving; its prac-

tice must alter considerably from what Major Du Cane's Report shows it to be at present. The governors, with scarcely an exception, all preach severity, and there is little doubt but they practise what they preach. Colonel Wellesley, for instance, mentions the case of one man having been brought before him thirty-eight times, giving this as an excuse for the number of minor punishments that he had been obliged to inflict. If the Governor of Gosport Prison will but study the Irish system, and see what kindness has effected therein, and act upon the lesson, he will not have to explain in his next Report that "the increase of minor punishment has been due principally to idleness in oakum-picking." Kindness is the most effectual crime-killer that an officer, be he colonel or prison-governor, can wield. It destroys insubordination or idleness far more quietly than the lash or dark cell, and what is more to the purpose, it is an effectual cure. "I have tried everything with ——," said a commanding officer one day despairingly to his adjutant; "I have imprisoned him, flogged him, and yet nothing seems to do him good." "Have you ever tried kindness with him?" was the reply. "No! by Jove," was the colonel's rejoinder. When he had the man in before him, who entering sullen and impenitent, was to his astonishment released without punishment, receiving instead, kind hopeful words that reached his heart; caused him like the Richard Doubledick immortalized by Dickens, to turn over a new leaf, and become a good soldier. A similar case was told in the pages of a contemporary a few weeks since by Major Haveland, late of the Queen's Bays. The writer's words are so good and so much in accord with our own sentiments that we quote the paragraph. "How much better it would be for the comfort of all classes in the army, if all would think there is something good and noble in every man; but unfortunately more pains are taken to punish faults than kind words to bring out good qualities. I once had a difficult case in the Queen's Bays; a young soldier was almost incorrigible, for ever breaking out of barracks after the erring daughters of Eve; he was again confined. I begged the colonel to let me deal with him. I sent for him to my room, told him he was disgracing his family, his comrades and his regiment, and in the end he would be flogged. Then I spoke kindly to him, and saw by the tears he was trying to suppress, that a kind word had touched his heart. I asked him to behave better as his bad conduct caused me pain and annoyance. He replied that I should never again be ashamed of him. He kept his word and was (after he served his time for a pension), discharged with four badges for distinguished good conduct, proving that kind words are far more likely to reclaim a bad man than the cat-of-nine-tails."* We recommend this experience of an old officer, here detailed, to the consideration of

* *Broad Arrow*, November 30, 1872.

Colonel Wellesley and other governors of military prisons, and more particularly to Major Du Cane.

The reason for our calling particularly Major Du Cane's attention to a paragraph which inculcates kindness to prisoners, is, that we have lately seen a circular which he has addressed to the several officials of military prisons. This circular places into the hands of governors and visitors the power to flog a prisoner for nearly any offence. We say "nearly any offence" as any offence may be so described as to come under one of the separate clauses mentioned, without taking into account clause 3, which runs as follows: "*When under punishment in a dark reformatory or ordinary cell, wilfully making a disturbance tending to interrupt the order and discipline of the prison, and any other act of gross misconduct or insubordination, requiring to be suppressed by extraordinary means.*" The *italics* are ours, for it is something dreadful to think that a prisoner should be flogged for simply whistling, singing, or shouting out in his sleep even, when undergoing punishment. And when we reflect that those warders, who make most reports of the conduct of prisoners, are considered the most efficient officers, the dreadful results that may flow from this order becomes more appalling. Such an order as this displays vindictiveness in the authorities and not justice, and we are certain that had His Royal Highness the Field Marshal Commanding-in-Chief but given the matter a minute's consideration, he would not have signed such a decree.

Turning to a more pleasant subject, the working of the Irish Convict Prison system, we point to the fact that for years previous to the introduction of this system, although crime was decreasing, still for three years afterwards it decreased far more rapidly. We have only the statistics of these six years at hand but they are very suggestive. The numbers convicted in Ireland were as follows: in 1850, 1,158 individuals; in 1851, 1,864; in 1852, 1,358; in 1853, 1,013; in 1854 (the first year of the new system), 692; in 1855, 518; and in 1856 the number had sank to 389. Even more striking conclusions may be drawn from the important facts contained in the undoubted statistical information, which has been obtained from private persons who have convicts in their employment as well as from other trustworthy sources.

In the Smithfield Reformatory Prison, lectures are regularly delivered to the prisoners, as many as four and five and six per week. For instance from July 27th to August 1st 1857, lectures on the following subjects were given to prisoners: Self-reliance and Self-control. Emigration—New South Wales. The Soil we cultivate, the Measurement of the Earth. Diseases and Sleep of Plants. Temperance and its Blessings.

The daily routine of work there is as follows: The bell rings at 5 A.M. when all get up, fold their beds and clean their cells. At 5.35 they go to prayers, and then work from 6 to 8 A.M. They

have their breakfast, and quarter of an hour's exercise, resuming work at 8.45 A.M. From 2 to 3 they are at dinner, commencing work again at the latter hour which they keep at until 5 P.M., when they go to the lecture room to be instructed until supper time, 7 P.M. At 7.30 P.M. they read until time for prayers 8.45 P.M., after which beds are made down, the cells locked and lights are out by 9 P.M.

Now for the expense. The cost of maintenance of 100 able-bodied prisoners for six months (in two iron moveable huts) was £1,072 12s. This includes everything connected with expenditure. The value of their labour was £1,308 18s., which left a balance after paying all expenses of £236 6s., or £472 12s. per annum profit on a hundred prisoners.

We have no information given to show in the present Military Prison Report, what expense to the country soldier-prisoners are; Major Du Cane, as we have already remarked, being particularly careful in *not* supplying the requisite information. A reference, however, to his predecessor's report for 1865, tells us that the expense of prison officers and for the subsistence and washing of 1,051 prisoners was £24,870, or upwards of £23 13s. 3d. yearly per man; this loss the public sustains by a useless demoralizing system. But the amount shown above does not give the expense of fuel and gas, rent, rates, prisoners' clothing, medicines, and other contingencies, which with the expense of the office and officers at 44, Parliament Street, would raise the average cost of each prisoner to the state, to thirty pounds, at which the loss to the country would more correctly stand as under for 1871:—

Cost of 884 prisoners at £30 each per annum . . .	£26,520 0s.
Then if 100 prisoners as above can earn £472 12s.	
a-year more than their cost, 884 would earn . . .	2,291 5s.

Total loss in 1871 to the State . . . £28,811 5s.

Now we hold that no amount of liberty given to visitors to order the infliction of a certain number of lashes, can alter the balance against the public purse as here shown. We may dark cell and flog our prisoners until the whole of the privates in the army have deserted, and by their tales, descriptive of their treatment they had received when in prison, stop the recruiting entirely, without altering the facts we have given.

We respectfully call the attention of the Secretary of State for War, and also that of the Commander-in Chief to the truths we have stated, as well as to the fact that while the whole civil criminal code since 1820, has been changed, the military code remains nearly the same as it was in the reign of Queen Anne. Crime rapidly diminishes when the simply deterrent element ceases to predominate. Up to 1820 all crimes from murder to larceny of five shillings privately in a shop, were punishable with death. Since then the rigours of the criminal code have been, in each

successive parliament gradually relaxed until the present time, when capital executions are so rare that they become wonderful in a way. More than thirty years ago Mr. Redgrave remarked that, "If the offences tried in England and Wales in 1841 had been tried under the laws of 1831, the eighty capital sentences passed in that year would have been increased to 2,172. It is only one hundred years ago since "pressing to death for refusing to plead" when being tried, was abolished in England; yet it is doubtful if that was more iniquitous than the permission given to visitors of military prisons, on the 27th of November last, to order a prisoner to be flogged on the evidence of any warder or warders who may choose to state that he was making a disturbance in his ordinary cell.

The increased number of desertions from the army during 1871 may be safely credited to the same cause, namely, the existence of a military code of law, only fit to govern soldiers such as we had in the service at the beginning of the present century, when the goals and workhouses of the kingdom were the chief recruiting fields of the army. Men such as they were, might need laws to govern them, that should only be applicable to the worst class of criminals; but men of any intelligence can never be ruled or kept in order by regulations meant only to manage criminals or children. Hence it is we find that in 4,293 prisoners, 1,876 or nearly one half were men of under two years service. Of this number 900, or nearly one half again were convicted of desertion. Between two and seven years service 1,312 men were imprisoned for various offences, the crimes of "desertion" and "insubordination" supplying 752 of the number of cases, while "absence" and "breaking out of barracks" counts for 315 more. Of the 4,293; 2,241 had been previously convicted, 3 of them fourteen times; 1, thirteen times; 4, twelve times; 4, eleven times; 11, ten times; 19, nine times; 24, eight times; 35, seven times; 65, six times; 99, five times; 196, four times; 314, three times; 458, twice; and 1,008, once. Of the 2,241: 647 had been convicted once previously of the same offence; 166, twice; 78, three times; 34, four times; 20, five times; 5, six times; 5, seven times; 2, eight times; 2, nine times; and 1 ten and eleven times respectively. We inquire could anything be more condemnatory of the hollowness of our coercive system of punishments than the evidence here supplied.

There is no record of even *one* prisoner having had his punishment or any portion of it remitted, yet surely among the 4,293 there must have been at least twenty deserving of this kindness; but it seems, however good their previous or present conduct could have been, no benefit was derived from it.

Béranger in his valuable work 'De la Répression Pénale,' tells us that, "In countries where executions are either abolished or seldom witnessed, the manners of the people improve and crime becomes rare." This is a fact universal in the history of penal

repression, and generally admitted now by all civilized nations; yet we continue to govern our soldiers by laws as unjust, as if we were to try and punish a Hindoo for bigamy or a New Zealander for heresy. The revision of our present "Mutiny Act," and "Articles of War," would do more to stop desertion and insubordination throughout the service than twenty such circulars as was lately issued from 44, Parliament Street, which we have called attention to. If the Secretary of State for War has forgotten the recommendation of the Royal Commission to abolish Regimental Courts Martial, we have not, and therefore call upon him to act upon the recommendation; which would be a good beginning of the work that two deputy-judge-advocate-generals drawing pay and allowances for this purpose have neglected to do ever since their appointment some years since. Will Mr. Cardwell oblige by seeing to this?

ARTILLERY.*

PART III.—BRITISH ARTILLERY.

Trials of the Royal Commission—The Armstrong and Whitworth guns—The projectiles—Comparative trials of the Armstrong and Whitworth systems—The new 9 and 16-pounder—The French and British Artillery compared—The new Whitworth gun—Extreme length of range unnecessary in field-artillery—The advantage of extreme range in Naval Ordnance.

During the last twelve or fifteen years England has expended countless millions in warlike experiment. This branch of our military annals would fill many volumes, and prove extremely interesting as the record and monument of the vanity of human propositions, and the inevitable failure of the best intentions in the attainment of perfection or even a probable finality. This result may be in the very nature of things; but it is none the less disheartening, especially with regard to the armaments upon which Great Britain depends, in the present day, for her security—formerly the warrant of her supremacy among the nations—our war-ships and their artillery.

Doubtless it is most consolatory to be assured by Mr. Reed—comparing the fleets of England, France, and America—that ours is superior to those of our competitors in naval construction—not only in this particular, but also in strength of armour, armament, speed, and facility of manœuvring—for such is the declaration of our chief naval constructor.

On the other hand, however, Sir William Armstrong cruelly informs us that all armour-plating is only useful in very rare cases,

* "Conférences sur l'Artillerie." Par le Capitaine J. De France. *Journal des Sciences Militaires*. J. Dumaine, Paris.

and that artillery will always be able to smash through the strongest plates that can be contrived. The thicker you make them, the more advantages you sacrifice to that delusive quality. In effect, Sir William declares that, if we would keep on a level with the improvement of artillery and the modern system of attack, we must build smaller iron vessels, but adapted for great speed, and divided into numerous detachments—which is the only means, he says, to defend ourselves against torpedoes—having their engines and boilers under the water-line, and only partially plated. So that our grand floating castles of iron would seem destined to become “things of the past” before they will have given very decisive proof of their superiority, like our former “queen” of weapons, the Enfield rifle, thirteen years ago enthusiastically bepraised, but now contemptuously called a gas-pipe even by the Volunteers!

Such a change would certainly be most satisfactory to the British sailor. Formerly our jolly tar could love his ship as he loved his lass—but he cannot fall in love with these huge iron tubs, which might have gratified the congenial taste of Vulcan, but which must make Neptune opine that “the service is going to the dogs”—for, not only are they unfit for human habitation, but admirably contrived for the instantaneous, wholesale drowning of many hundreds of gallant men—one of the remarkable exploits of this monstrous contrivance.

Artillery, then, will tend to modify our naval system; and it is very satisfactory to find that England leads the way to this consummation.

England is assuredly the country where guns of all kinds—of small and monster calibres—have been studied with the greatest care. In 1858, a Royal Commission advised the immediate adoption of the Armstrong rifled system for field-artillery. The advice was acted upon, and our field-artillery was armed with 9-pounder and 12-pounder rifled Armstrong breechloaders. There were also 6-pounders and 20-pounders of the same system—the latter as pieces of reserve or guns of position, the former for colonial service.

Unfortunately, in the China war, these guns did not give satisfaction. In fact, their failure on that occasion led to the renewal of experimental investigation, and in 1864, there was commenced a series of comparative trials with three 12-pounders—one an Armstrong breech-loader, an Armstrong muzzle-loader, and a Whitworth muzzle-loader.

After numerous trials, the Commission did not hesitate to give its preference for the two muzzle-loaders. At the same time, however, the Commission was less affirmative respecting the preference to be given to either of the two muzzle-loaders—the Armstrong or the Whitworth. Soon after, however, an Armstrong 9-pounder muzzle-loader was adopted. It consisted of a steel tube surrounded by hoops of forged iron. The success of this gun has recently led to the adoption of a 16-pounder on the same system.

At the present time a great portion of the British field-artillery is on the breech-loading system of Sir William Armstrong. There are four kinds—the 20, 12, 9, and 6-pounders. They are constructed as follows: a central tube enveloped by cylinders forming hoops and exerting a marked pressure upon the central tube. At first, the latter was of steel, but Sir William Armstrong, losing confidence in steel, made this central tube of forged iron ribbands. However, steel was subsequently re-adopted, with forged iron hoops or envelope.

The projectiles of these guns are the segment-shell and case-shot. The segment-shell is designed to serve either as an ordinary shell or a Shrapnel. This projectile is compact enough to traverse six feet of hard woodwork without breaking, whilst its resistance against a force acting to effect its bursting is so small that it does not require one ounce of powder to burst it into pieces.

When the segment-shell bursts, its splinters—considerably more numerous than its segments—are projected by virtue of the remaining velocity of the projectile; the internal charge of powder is too weak to give them great dispersion.

The gun-carriage of the Armstrong system is of wood, and presents a very remarkable contrivance for aiming. It is so arranged as to give the piece a horizontal movement, thus enabling No. 1 of the gun detachment to finish giving the direction by means of a lateral screw, more accurately and quicker than by the displacement of the trail by his assistant.

The following is a comparative estimate of the British and French artillery, put forth by Captain De France.

If we examine, first, the effects of the projectiles, without taking into account their accuracy, we observe that the projectile of the English 9-pounder is nearly equal, as to weight, to the French 4-pounder; but that the projectile of the English 12-pounder—but little superior to the French 4-pounder—is very inferior to the French 12-pounder projectile. The weight of the English 20-pounder projectile is also inferior by two kilogrammes (about four pounds) to that of the French piece of reserve. In the English system, the segment-shell is a substitute for the common shell and canister; it may even be employed as grape-shot.

With respect to the simplicity of ammunition, this single projectile of several uses would be very advantageous. We have now to learn whether the effects it produces are as good as those of the three projectiles for which it is substituted. Comparative experiments have been made in England, on this score, with projectiles of the same calibre. The segment-shells were fired by an Armstrong 12-pounder breech-loader and by an Armstrong 12-pounder muzzle-loader. The other projectiles to be compared with them were fired by a Whitworth muzzle-loader. The results were as follows:—
Against earth field-works. The object was, for each gun, a parapet of field-fortification of earth, having an embrasure armed with a

gun, around which were arranged boards representing the men of the gun detachment. In rear of the piece was disposed a pannel 5 m., 40 in length by 1 m., 70 in height. Each gun fired 45 rounds at several distances, comprised between 546 metres and 1,183 metres. The Armstrong breech-loader, firing segment-shells, broke the two trunnion-plates and damaged the carriage; it struck the boards representing the men of the gun-detachment 15 times; and made 136 holes in the pannels, without counting 26 splinters which remained in them.

The segment-shells with the Armstrong muzzle-loader struck the effigy gun-detachment 4 times, made 35 holes in the pannel, and lodged 14 splinters. The common shell, fired by a Whitworth, struck the gun in position twice, struck the detachment 8 times, and made 87 holes in the pannel.

Against a wall. The three guns effected about the same damage upon the wall; but, upon the pannels in the rear, the Whitworth projectiles made fewer holes.

Against a field-piece. In 9 rounds, the Armstrong breech-loader struck the gun-detachment 29 times,—the gun-carriage and limber, 16 times. The Armstrong muzzle-loader struck the gun-detachment 31 times, and the gun-carriage and limber 53 times. The Whitworth hit the gun-detachment 19 times, and the gun-carriage and limber 23 times.

In order to compare the segment-shells and the Shrapnel-shells as to their effects as grape against troops, 5 rounds were fired by each gun at 400 metres, against 6 ranks of pannels, fixed with the usual intervals, and with the usual width to represent troops in column at quarter distance. The average number of holes made in the 6 ranks per round were as follows:—

141 by the Armstrong breech-loader;

254 " " muzzle-loader;

131 " Whitworth muzzle-loader.

The two first guns fired, as we have stated, segment-shells—the last Shrapnel shells.

Thus it appears that the advantage must be claimed by the segment-shells as to the total effect on the column; but the Shrapnell shell was very much superior in effect upon the first line (16 to 1), that is to say, consequently, against a troop *in line*. The advantage of the Shrapnel results from the fact that its balls are dispersed more regularly than the segments of its rival shell. On the contrary, when the projectile is made to burst by the effect of the shock at the point of fall, the segment-shell has a considerable advantage.

“Compared with the French *obus à balles* (or Shrapnel),” says Captain De France, “the Armstrong segment-shell is inferior. In effect, the French 4-pounder shell contains 60 balls, and splits itself into about 20 splinters, thus producing a total of 80 small projectiles. The Armstrong segment-shell is constructed to divide into

43 segments, which fail, as splinters, in accuracy and range; whereas the balls of the French Shrapnel continue their course after the bursting of the projectile, in obedience to the impulse and direction of the latter at the moment of bursting."

The segment-shell is provided with two fusees, one of variable duration, to make it burst in the air, the other a percussion fusee, to make it burst at the first shock. It seems that these fusees do not act very well, according to the report of Major Hay on the operations in China. He says that these fusees of variable duration were found to be so little to be depended upon, that they were very rarely used in the course of the operations. They burst either at the mouth of the gun or at a very short distance from it. In action, under the fire of the enemy, it was difficult to get any of the gun detachment to regulate them with care. Nor did the percussion fusees answer expectations any better. In fact, many of them did not act at all. The gallant major, however, concludes by averring that, although this sort of fusee was very bad, the proportion of projectiles which burst was at least equal to that of no other battery engaged, the fusees of the French being very indifferent, and a great portion of their shells did not burst at all.

In comparing the segment-shell and the common shell in view of transportation, the advantage is with the latter, which is, moreover, less liable to deterioration. Its fabrication is much more simple, and the cost is, consequently, much less. Hence, Captain De France concludes that the segment-shell is inferior to the French *obus à balles*.

With regard to range, accuracy, and the tension of trajectory—as measured by the extent of the dangerous distance, and which actually sums up the qualities of a gun as to fire—Captain De France avers that our British artillery is very conspicuous, and he gives the following table of the comparative dangerous spaces of the French 4-pounder, the Prussian 6-pounder, and the English 12-pounder—all of pretty nearly equal weight of shot:—

<i>Dangerous Spaces.</i>	<i>French.</i>	<i>Prussian.</i>	<i>English.</i>
At 1,000 metres . .	27 . .	35 . .	39.03
„ 2,000 „ . .	9 . .	12.09 . .	12.78
„ 3,000 „ . .	38 . .	6.50 . .	7.28

This table shows that, for the three pieces which are the most comparable for weight of projectile, the English gun possesses a great superiority over the French piece, although less superiority—but still real—over the Prussian gun.

This superiority of the Armstrong artillery over that of the French, in point of fire, is easily explained. The English 12-pounder projectile weighs more than that of the French, and receives an initial velocity of 358 metres, whereas the French projectile, weighing less, has a velocity of only 325 metres. This difference results partly from the fact that the English powder is stronger than that

of the French, but also from the suppression of windage in the English gun. Moreover, the diameter of the English projectile is less, and thus the resistance of the air is diminished.

If we compare the English artillery with that of the French in point of mobility, the French matériel would seem to have the advantage in a remarkable degree, and this has been proved by experience.

In the China campaign, the French matériel was in presence with that of England, and one of our war correspondents testified as follows:—"The allied armies followed the Tien-Tsin road. The Armstrong caissons were sunk up to the axle-trees; it was necessary to remove the ammunition and leave the caissons in the mud. The gun-carriages sank in like manner, and the horses had to be taken off, and ropes had to be fastened to the wheels for their extrication." On the same occasion, in fact, the same day and hour, and on the same ground, we are assured that the French 4 and 12-pounders made their way, and none of them were left in the Chinese mud.

Whilst admitting the great superiority of our English guns in accuracy, Captain De France pronounces them to be more complicated and more costly than those of the French. He declares that the Armstrong projectiles do not produce greater effects than those of the French, that they are more complicated, more difficult of fabrication, and more costly. The *ensemble* of the English matériel is less mobile, and, consequently, less appropriate for a campaign than that of the French.

Respecting the trial between the Armstrong and Whitworth 12-pounder, it may be observed that the Whitworth gun, although giving less initial velocity, this velocity is longer retained; and, consequently, with regard to the velocity of the projectile when it strikes the object, it must be superior to its rival.

The Armstrong breech-loader preserves its initial velocity better than the Armstrong muzzle-loader; but the initial velocity is less, which may result from the fact that the gun is shorter, the expansion of the gases of the charge not having time to produce all its effect.

The Armstrong muzzle-loader, superior to the two others in initial velocity, meets with much more considerable losses of velocity with time. This may be attributed to the prominence of the studs, which doubtless produces an effect analogous to that of an increase of diameter in the projectile. This explanation is corroborated by the advantage which has been found in the French artillery, by inclining the surface of each stud towards the point of the projectile.

All tends to prove that the mode of loading does not alone influence the value of the velocities given to projectiles, and that, with the same charge for the same projectile, we can obtain an initial velocity as great, and even greater, with a muzzle-loader than with a breech-loader.

The conclusions come to by the Royal Commission on the two

systems were as follows. The two muzzle-loaders are superior to the breech-loader; but a positive preference was not expressed for either of the muzzle-loaders. The superiority of the Whitworth projectile was recognised, for, although of a single metal (cast-iron), it does not injure the bore, does not deteriorate by friction, and costs less than the Armstrong projectiles. The form of the Whitworth bore is simpler than that of the Armstrong muzzle-loader; and the two modes of rifling in the two guns, although very different and of very unequal twist, have given equally good results, without its being possible to say whether it would be advantageous to modify either.

It follows, as a matter of course, that we have discarded breech-loading, so much vaunted about ten years ago. The conclusions of the Royal Commission not having been very decisive as to the preference to be given to either of the two muzzle-loaders, it is not surprising that a definitive resolution was not immediately taken on the subject. But, independently of the trials alluded to, our Government instituted others of every kind, with a considerable number of rifling systems and projectiles proposed for naval guns. These trials have ended with the announcement of the absolute superiority over all the systems of rifling hitherto applied in England to muzzle-loaders—of what is called “the French gun,” on account of the resemblance of the rifling—which, after the last modifications suggested by Major Pallisser, took the name of “the Woolwich Gun.” Captain De France says:—“It is probable that analogous trials have been made for land artillery—since it is certain that England has taken the same resolution for the latter as for its naval artillery—by adopting for field-artillery two muzzle-loaders—a 16 and 9-pounder.” Both are composed of a steel tube strengthened at the breech by a cylinder or riband of forged iron carrying the trunnions. They have three grooves of the Maxwell system—very like the French system—and they are adapted to fire the three sorts of projectiles. All the projectiles are furnished with the Boxer fusee or the percussion fusee of Colonel Maxwell. •

The final conclusions of Captain De France respecting the British artillery are as follows:—“Its projectiles are of the same nature as that of the French. The Shrapnel appear to be more efficacious than the French *obus à balles*, since at 1,840 metres the Shrapnel of the English 16-pounder still produces 60 holes—indentations or splinters upon 4 ranges of pannels—whereas the French 4-pounder *obus à balles* gives only 15 at 1,500 metres, upon 2 ranges. The range and accuracy—appreciated by the dangerous spaces—must be much superior in the English guns.”

This fact is demonstrated by tabulated data. It is only in mobility or lightness for transportation that the French guns can claim any superiority over those of Great Britain. So much for our “handy 9-pounder and 16-pounder,” as they have been called; but another novelty has recently come forth from Manchester—Si

Joseph Whitworth's new field-gun, manufactured from compressed steel—strong enough to bear double the ordinary charge, and having a range of six miles!

It is a 9-pounder breech-loading field-gun, weighing $8\frac{3}{4}$ cwt., the maximum diameter of the bore is 2.72 inch, the minimum 2.47 inch, the length 67 inches, the length over all 73 inches.

The metal of this gun is a Whitworth "idea," and this is enough to designate the truly Napoleonic method of this extraordinary genius of artillery construction. Sir Joseph Whitworth has, by submitting fluid steel to hydraulic pressure, produced a metal vastly stronger than any wrought iron—and therefore most applicable for the fabrication of guns—whilst his hexagonal system of rifling, with mechanically fitting projectiles, entirely obviates the evils which so seriously detract from the value of the ponderous 25 and 35-ton guns, with their studded shot and shell.

The great strength of the material enables Sir Joseph Whitworth to burn fifty per cent. more powder than can be consumed in a muzzle-loader, with the result of vastly increased velocity and enormous range. The remarkably even results of its range are stated as follows.—10,508 yards, 10,510 yards, and 10,505 yards, in succession.

For testing the strength of the material, $1\frac{1}{2}$ lb. of powder was exploded in a cylinder of the "Whitworth compressed steel," with no escape for the powder-gas except through the vent, which was exactly one-tenth of an inch in diameter.

This cylinder represented the breech end of a 9-pounder Whitworth muzzle-loading gun, cut off at the trunnions, with the shot screwed in, the powder being confined in a space of 8 inches by 3.07 in diameter.

When ignited by a friction tube, the powder blew off like steam through the vent, the only result being to increase its diameter to two-tenths of an inch.

The penetrating power of the gun was tried against one of Cammell's 3 inch plates, placed at an angle of 45 degrees against two pieces of timber at the sides. The shell was flat-headed, weighing 15 lbs. 14 oz., 5 diameters long, and propelled at a range of 100 yards by $2\frac{3}{4}$ lbs. of powder. The first shot broke up on impact after penetrating $1\frac{3}{4}$ inches at the upper part of the hole, and $7\frac{1}{4}$ inches at the lower part. The next shot was badly aimed, missed the plate, cut out a piece from a sheet of $\frac{3}{4}$ inch iron placed over the target, and then, penetrating loosely the shovelled sand at the distance of 17 ft., flew away 150 yards amongst sandhills, and was recovered and fired again, this time with better result; for, hitting the bull's-eye marked on the plate, it passed completely through, and then penetrated to an unknown distance into the sand behind.

As for rapidity of firing, five rounds were got off, by unpractised hands in 47 seconds. Indeed, the limit of rapidity seems to be the capacity of a man to hook on friction tubes to a line, place them in

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the vent, and fire. Fifteen rounds were fired in 3 min. 36 sec., of which 34 secs. represented a loss of time occasioned by failure of friction-tubes, and finally 10 were fired without any delay from this cause in 1 min. 46 secs. For this rapid firing the wheels of the carriage were locked by a special arrangement in the nave, which had the effect of reducing the recoil to about 18 inches. Without this locking apparatus the recoil of the gun on the same ground would have been between five and six feet.

During the whole of this rapid firing the breech worked with perfect ease, and the result was very satisfactory.

With case-shot the performance of the gun was as follows:—Ten rounds were fired at targets 28 ft. wide by 9 ft. high, at a range of 200 yards. At this short range the effect seemed to be very like a charge of shot from a fouling-piece. The shot weighs $8\frac{3}{4}$ lbs., contains 83 bullets of 17 to the pound, and is propelled by $1\frac{1}{4}$ lb. of powder. The result was 226 bullets and fragments of the case struck the target.

Finally, the gun was tested for the purpose of showing its capabilities for firing long projectiles, with low charges of powder, at very high elevations.

A common blind shell, five diameters in length, which would contain a bursting charge of 13 ozs., was fired at an elevation of 42 degrees, with a small charge, and it ranged like a mortar through the air, plainly visible from its low velocity, to a distance of 800 yards.

In order to show that the same description of shell was suitable for ordinary firing, one was filled with the bursting charge of 13 ozs., and fired at three degrees of elevation, and a range of 2,000 yards was obtained.

But the chief point in favour of the Whitworth gun is its durability, the great metallurgist having, by bold and ingenious devices, succeeded in mastering the eccentricities of steel.

The everlasting defect of that substance has been a liability to break up, because the ordinary methods of production failed to exclude flaws and cavities. To get rid of these defects, Sir Joseph Whitworth has applied enormous pressure upon the hot metal—no less than twenty tons to the square inch—and has thus squeezed out the intrusive air from the steel columns destined to form a gun.

In addition to immense range and great penetrative force, this gun displays singular accuracy, the deflection at six miles range being only from forty to fifty feet.

But the trials for flight are useful mainly as proofs of the gun's capabilities and strength of construction, because in war, few, if any, opportunities could ever occur of employing a field-gun with perceptible effect at such distances. The application of far-reaching guns has its limits, and little inconvenience would be caused by batteries so remote and invisible, not to mention the improbability of their being able to do any harm. It must always be borne in

mind that the effective and practical ranges are never likely to be over two thousand or three thousand yards. Such is the scope of modern tactics, which renders the management of artillery—in combination with infantry and cavalry—a matter of surpassing difficulty. Batteries six or even five miles from the line of infantry would materially complicate the arduous task of securing victory. Riflemen are warned against the folly of opening fire at long ranges, and the reason for this injunction is equally applicable to the employment of batteries in the same fashion. In the field, anything operating beyond the clear perception of the naked eye is objectionable; and it is futile to count upon the employment of telescopic sights in commanding positions. At extreme distances no commander could follow the mutations of a battle-field, whilst it is most essential that artillery fire—though comparatively distant—should be distinctly able to support as well as to precede infantry attacks. As heretofore, battles will be determined by close fighting. The last war proved this most conspicuously on every occasion. It was always absolutely necessary to “get in,” in order to secure victory. In battles on land the guns must conform to the movements of the riflemen.

It is otherwise in naval battles. Herein, skilful manœuvring, speed, good gunnery, accuracy and weight of projectile, and *long range* will be the secret of victory—as we learned to our cost in the last American War, when, on one occasion, the enemy was thus enabled to “play at long bowls” with our ship, which was compelled to haul down her flag by the sheer inability to get in with her skilfully manœuvred and appropriately conditioned antagonist. This fact should be a warning to us in the matter of our big, unwieldy ironclads, in the presence of modern artillery. The qualities above named, even in a wooden ship, might prove more than a match for the most powerful Leviathans of our iron fleet. What can the monster do if it cannot “get in”—that is, if its antagonist can keep it within the range of its artillery, and knock it about at will with guns of longer range, in absolute security?

This subject of Artillery cannot be over-estimated in importance. “It is remarkable,” observes a writer in a leading daily contemporary, “that although the sabre, the lance, the musket, have each in turn been called the queen of weapons, that poetical phrase was never applied to a cannon. In many respects the operative effects of artillery has been constantly exaggerated. Everybody knows that it kills and wounds fewer men than small arms, but everybody dreads its power. The moral influence of a battery is greater than its material effects. The thunder of a cannonade, the shrieking rush of shot, the crashing explosions of shell, shake the nerves of all save the best troops. Then, too, well-directed guns are able to silence rival batteries, and infantry are discouraged when they see their own cannon rendered useless. But troops suffer infinitely more from musketry, and the redoubtable artillery itself does not

come within a few hundred yards of infantry in open order. Under modern rifle fire no battery is able to live. Gunners and horses speedily melt away before the stinging hail of the breech-loader. A distinguished American General is said to have ventured the opinion that perfect riflemen could fight and win without the help of artillery. The assertion is paradoxical, but it serves to illustrate the relative value of the two arms. Guns, again, can do nothing by themselves, whereas foot soldiers alone are sometimes able to check and punish all arms combined. But while it is wise to guard against exaggeration, it is eminently foolish to underrate the worth of a powerful, well-commanded, enterprising artillery. The history of a country's warfare, especially since Frederick led the way towards mobility of action by inventing horse-batteries, shows how highly it has been esteemed by all great commanders. Napoleon brought the use of the old smooth bore to the highest pitch, and not only won battles by employing overbearing masses of guns, but created an artillery school, the influence of which has not yet died out. In the late war the Germans, taught by the lessons of 1866, reverted to the Napoleonic principle, which, of course, they had to apply under altered conditions. Napoleon's large batteries were formed up within comparatively short distances of his enemy's lines; the Germans—and, for that matter, the French—were obliged to keep beyond the reach of rifles. Nevertheless, the action of a battery at fifteen hundred yards is now as effective as one established seventy years ago at half that distance. Even at longer ranges bodies of foot in close order are severely mauled by gunners.

We have reason to be proud of our artillery. None in the world has finer material, better horses, hardier gunners, or more daring and better qualified officers; but judging by the light of authoritative criticism, there is still much to be learned in the proper employment of this arm, with a view to the success which it may undoubtedly be enabled to achieve in future battles.

INDIAN SERVICE AND RELIEFS.

The question of the annual reliefs for India and the Colonies is one of the most difficult problems with which the military administrator is called upon to deal. It is a terrible drain upon our small army, and the fact of an army being kept up to its strength entirely by voluntary enlistments renders the matter even more complicated and difficult to arrange. Since the Indian Mutiny and the amalgamation of the East India Company's army with that of Her Majesty, the number of European troops kept in India, largely augmented as it is since the former event, is entirely drawn from the comparatively limited army that Great

Britain possesses, and the fact is more apparent year by year that this drain upon it is becoming almost insupportable, and the difficulty of meeting it causes measures to be taken, such as the transfer of men from one regiment to another, which detract enormously from the harmony and well-being of our military system. Besides, the great military question of the day is the reorganization of the army, and the purpose of that reorganization is the necessity of our being amply prepared to meet any invasion or attack. Various schemes have been suggested, nearly all of which, including that introduced by Mr. Cardwell this spring, point to the necessity of localization, and the introduction of a corps or district system, such as has been adopted with such signal success in Germany, and is in process of formation in France. But the fact of nearly half our army being necessarily abroad for the defence of India and the Colonies makes the adoption of this system almost impossible, and certainly renders nugatory many of its advantages. It seems anomalous that the nation possessing in proportion to its population the smallest army in Europe, should be obliged, nevertheless, by the exigencies of its vast colonial possessions, to send forth from its shores a very large portion of that army, whose services may at some time be of so paramount importance to the integrity of the kingdom.

There is no doubt also that service in India, as at present carried out, is extremely unpopular, and particularly so among the Royal Artillery, of whom so large a number are now stationed there, and although the officers and soldiers of the British Army always have and always will go without complaint wherever the call of duty summons them, still, anything tending to cause the service to be unpopular should, if possible, be avoided. With voluntary enlistment it is most essential that the military profession should be favourably regarded both by those who join it as well as by the community at large, and the numbers of men invalided from various causes from India must produce an abhorrence of the very name of the country among those in any way brought into contact with these unfortunate sufferers.

Unlike many of the military problems which are at present under discussion, the one treated of in this paper presents a solution of comparatively easy accomplishment, which, in a great measure, would lessen the difficulties now apparent, and at the same time would do away with a considerable amount of discontent that does not show itself to any great extent, but is nevertheless, present, and, therefore, to be regretted. This solution is the formation again of a local army for India, such as existed previous to 1857, only in a remodelled form. The advantages that would be gained by this plan may be briefly enumerated under the following heads, viz. :

1. That the British, as distinguished from the native army in India, would regard their service there, not as a species of

banishment as at present, but as the carrying out of the career that they had voluntarily chosen, thus necessarily facilitating recruitment for Indian service.

2. That it opens a field of employment for the ranks of the community from which are drawn both officers and men, offering more lucrative advantages than the army as now constituted presents, both as regards pay during the period of service and retiring allowances and pensions after its completion.

3. That the expense laid on the country in the matter of transport might be materially reduced.

4. That in the case of the Royal Artillery, that portion destined for service in India, retaining equal privileges and the power of exchanging, but being placed separately for promotion, the slowness of promotion, now so continually brought forward, would be considerably alleviated.

It may sound paradoxical after what has been stated above with regard to the unpopularity of Indian service, but there would undoubtedly be much less difficulty in obtaining recruits for a local Indian force than under the present system of recruiting for general service. A man would know that he was undertaking a special vocation, and not acting in the haphazard way in which so many enter the army at present. Besides, the choice that every man might make, either of service in the home army, as it may be called with his duties at or near home, but with limited pay, or of service in the Indian army with temporary expatriation, but for larger pay, &c., would be of considerable advantage; for it is to be hoped that the army will become more of a regular profession, and those who join will not consist mainly of the waifs and strays of society, driven to it as a last resource, but men who seriously take to it as a means of livelihood, and who in that case will gladly avail themselves of the choice mentioned above. Again, if the system of short service with a large reserve is to be definitely adopted, it will be perfectly impossible to keep up the army in India as it is at present, on account of the large number of men who would be entitled to and would claim their right to enter the reserve.

It may be advisable to state here the force of the British army now stationed in India, and when it is borne in mind that four regiments of infantry and one of cavalry annually go out and the same number return, besides very large drafts, and nearly every year a brigade of artillery exchanges from England to India, and *vice versa*, even the non-professional reader will admit what an enormous strain this is upon the limited resources of our recruiting system. Out of five brigades of Royal Horse Artillery there are three in India; of twenty-four brigades of field and garrison artillery there are fourteen in India, including one in Ceylon, nine regiments of cavalry and fifty-seven battalions of infantry there or in the adjacent colonies.

It is not to be inferred that the whole of the European force in India is to be local, as some regiments of Her Majesty's should still be kept in that part of the empire, firstly, because if all these regiments were withdrawn it would necessitate a very large reduction in the home establishment, and the possible sweeping away from the army list of corps whose achievements have brought lustre to our fame; and, secondly, because it is to be feared that unless the home and Indian army were brought into a certain degree of contact and friendly rivalry and emulation, a feeling of jealousy and estrangement might be engendered that would be very disadvantageous; but there is no doubt that the number of regiments now stationed in India might by this plan be very much reduced, and, consequently, the scheme of reorganization for home defence considerably assisted.

Looking also at this question in its geographical aspect, as regards the defence of our colonies, it will be seen that they divide themselves almost naturally into two great divisions, those that from their position should look to Great Britain for their supplies of men, stores, munitions of war, &c., as well as general support in case of attack, and those that should be dependent for the same on our great military resources in India. The Mediterranean stations, Halifax, Bermuda, and the West Indies, naturally would be the outlying stations dependent on Great Britain, but the Cape, Mauritius, Aden, Singapore, and Hong Kong might certainly, from their geographical position, be dependent in the same way upon India; and there is no doubt that all these last-mentioned places might be garrisoned mainly by native forces drawn from the Indian army, thereby, again, alleviating the great drain now made upon our English-born troops. It should always be remembered what a magnificent field for recruiting we possess in the warlike tribes of India, and the splendid soldiers provided for us among the Sikhs, Ghoorkas, and even the Malays, and these would be far better able to bear the somewhat unhealthy climates of these distant stations than English troops who are now decimated annually in stations like Mauritius and Hong Kong.

From the above remarks it will be seen that the scheme suggested is that the Imperial army of Great Britain should be divided into two great bodies, both, of course, under the commander-in-chief in England as the representative of Her Majesty, but that one portion should be for the defence of England and her immediately dependent colonies, the other for India and the colonies in its vicinity; that a portion of the regiments of the English army should in regular rotation, as at present, proceed for service in India, but that otherwise the force maintained in that part of the empire should consist of local troops, partly European and partly native. The term of Indian army should be entirely done away with as being apt to mislead,

and also being rather an invidious and unnecessary distinction, all the troops of the empire, be they white or coloured, are now the soldiers of Her Majesty, and all local distinction should be discontinued. It might be necessary to prevent misapprehension to distinguish the artillery and local regiments as Royal Indian Artillery, &c., but as the regiments could retain the numbers they now bear in the army list, even this distinctive appellation would scarcely be required. One of the first steps to be taken should be to do away with the terms Bengal, Madras, and Bombay armies, the whole being amalgamated as the army of Her Majesty's Indian Empire, ruled by one responsible chief, the commander-in-chief in India. The country should be divided into large military districts—this, of course, would very much depend upon local circumstances, but four are suggested, viz.:—Bengal and the north-eastern portion of the empire, Madras and Ceylon, Bombay and Sindh, and the north-west provinces of the Punjab, and there would be no necessity to alter any of the divisional or brigade commands, they becoming dependent upon the district command in which they are situated.

It is difficult to lay down rules as to the number of local European regiments, as the experiment being, to a certain degree, tentative, and dependent upon the power of recruiting in Great Britain, too much should not be attempted at first; but the following suggestions are thrown out, which would not necessitate any great radical change, or even a very large addition to the number of regiments now borne on the army list. A brigade of horse artillery should certainly be stationed in each district, that would necessitate the addition of one brigade, but a reduction on the other hand might be made in the field and garrison brigades now stationed there, of which there are fourteen (including one in Ceylon); these might be amalgamated into nine, allowing a field and garrison brigade for each district, and one for service in the dependent colonies. The nine regiments of infantry amalgamated after the Indian Mutiny may be retransferred and three others added, thus allowing three regiments for each district, and the three regiments of Hussars, the 19th, 20th, and 21st also retransferred and another formed, and it might not be inadvisable to form these regiments into strong corps of mounted riflemen on the plan suggested some years ago by Sir H. Havelock, more especially as this description of force is much advocated at the present time. It is not to be understood that the various brigades of artillery and regiments should remain permanently in the several districts, as that is undoubtedly not a satisfactory arrangement, but their change of quarter should be regulated by the commander-in-chief in India, who also would authorize the detail of troops for the out-stations and colonies. If the system was found to work well, it would be perfectly practicable to form second battalions to these local regiments, thereby reducing again

the number of the home army battalions in India and saving considerably in the matter of transport, as the difference between sending out an entire regiment, or drafts to regiments whose cadres are already at a station, is very great.

It is undoubtedly essential before any such plan can be put into operation that a different scheme with reference to duration of service should be established, as it would be perfectly impossible to carry it out under the present system of short service and reserve. Besides, as the chief inducement in recruiting for the local Indian service would be the prospect of a good pension after a comparatively lengthened period of service, it would be absolutely necessary that these regiments should be placed on an entirely different footing with regard to duration of service than the rest of the army; and unless it is intended to relieve the regiments stationed for a time in India more frequently than is the custom at present, some such scheme must be introduced in their case also.

There is no doubt that a great saving in the expense of the transport service would be effected, as undoubtedly the men remaining longer in India would become more acclimatised than they are at present, and it is to be hoped that the number of invalids yearly sent home might thus be considerably reduced, and consequently fewer men would have to be sent out from England. When it is borne in mind that during the stay of a regiment at a station like Hong-Kong, it may be necessary to renew its entire strength two or even three times, it shows the terrible drain that such a service is upon the youth and stamina of the nation, and how necessary it is either to station there native troops, or at any rate, men somewhat acclimatised; and the present system of sending regiments direct from England to these unhealthy stations is most disastrous and also very expensive to the country.

A large recruiting depôt must necessarily be established in England for the local Indian regiments, and it might be advantageous to have another depôt at Malta, to which the recruits should be transferred for a time before proceeding to India; this would have the double advantage of somewhat accustoming the men to a hot climate, and also greatly check the amount of desertion, now so terribly prevalent.

If such a scheme as that suggested in this paper is to be put in force, it ought to be done without delay, while the feelings of the old Indian army are still turned towards their former associations, and the remembrance of their ancient fame, and before the amalgamated regiments become so far assimilated with those of the rest of the army that the retransferring to local Indian service might seem to be a hardship. It is certain that the present system of keeping up the European force in India, which is the backbone of our strength and power there, is too costly and too much of a strain on the country to continue, that shifts and temporary

arrangements are continually required, and that when the short service system is definitely and completely introduced, it will be quite impossible to continue it as it is at present. It is impossible to combine the arrangement and necessities of an army occupying distant possessions with those of an army destined only for home service; but the two essentially necessary as they both are to the requirements of the empire, may be easily placed upon different organizations without in the smallest degree detracting from the merits or advantages of either, rather in fact adding to them, by giving the choice of service in either as mentioned before.

No attempt has been made in this sketch to go into the multifarious details that a scheme of this description would necessitate, nor is there any claim for originality in the conception, as the same idea has been often advocated by far abler pens; but among the many questions relating to our army there is none of so great importance as this, and some change in the system is absolutely necessary, otherwise it will inevitably collapse, perhaps at a time most imminent and hazardous to the safety of the empire.

RECORD OF THE SERVICES OF THE ROYAL FUSILIERS.

(Continued.)

The outbreak of the war with Russia caused the Royal Fusiliers to be again recruited to a war strength. The regiment was then stationed in Manchester, and its recruits were to be obtained in the northern counties; the recruiting parties in Yorkshire being most successful. During the early Spring of 1854 the regiment had been filled up to its war strength, and the recruits drilled into one of the smartest battalions in the British Army. It was not, however, one of the first to proceed to the East, for it did not leave Manchester until Tuesday, the 4th April, when it proceeded by the London and North Western Railway to Southampton, for embarkation on board the 'Orinoco.' It was then 900 strong, under the command of Colonel Lacy Yea. As was the case with every other regiment that proceeded to the seat of war, its departure from the town where it had been stationed was the signal for an outburst of enthusiasm. As the troops marched through the streets they were accompanied by thousands of people, who cheered them with the most fervid vehemence. On their arrival at Southampton on Tuesday evening they were at once embarked, and proceeded on their journey. They disembarked at Scutari, and were placed under the command of Sir George Brown, forming, with the 19th, 23rd Royal

Welsh Fusiliers, 33rd, 77th, 88th, and 2nd battalion Rifle Brigade, the Light division of the Army.

The stay of the Royal Fusiliers at Scutari was not long. On the 16th May, Sir George Brown inspected the division, and its splendid appearance even satisfied his rigid notions of the proper appearance of regiments. A move was then in contemplation, and preparations were being made for it, but things were not in readiness. On the 26th May, the Light division was to have left Varna, but its departure was obliged to be postponed because the Commissariat would not have provisions enough ready to start for two or three days more. By the 28th, however, the preparations had been completed, and next morning, at daybreak, the division paraded for embarkation, "as steady and solid as ever, with long lines of bullock carts and buffalo arabas drawn up between them, and commenced their march, winding slowly along over the sandy slopes which led to the sea." They arrived at Varna on the 2nd June, and disembarking, went into camp there until the 5th June, when they were marched up to their camp at Aladyn, about thirteen miles off. In this camp the men were drilled daily, and those who had not practised with the Minié rifle were especially instructed in its use. On the 30th June, the division quitted the camp on the plateau near Aladyn, and marched to Devno, about eight and a-half miles further off. The division was reviewed by Omar Pasha on the 3rd July, and elicited both from him and the French officers who were present, as spectators, the warmest expression of praise for their gallant bearing and superb discipline. It was in this valley "the Valley of Death," as the soldiers mournfully called it, that the two armies, both English and French, suffered so much from cholera, and were reduced in physique to an extent that ill-fitted them for the active duties that were awaiting them. Notwithstanding these losses, however, the troops were kept there until it had been determined to invade the Crimea, and so bring the Russians to action.* For this purpose the Light Division commenced its march from Monastir to Varna at 5 a.m. on Wednesday, the 23rd August. The men, glad to leave the fatal spot where so many of their comrades were slumbering, were in the highest spirits at the change, and the prospect of a brush with the Russians, and sang songs as they tramped along; but, poor fellows, so greatly had they suffered, that their packs had to be carried for them by mules and horses. The troops were all embarked at Varna by the 6th September, and on the morning of the 7th, the vast armada containing them stood out to sea. The disembarkation took place in Kalamita Bay on the 11th; a boatload of the Royal Fusiliers, accompanied by Lieut.-Col. Yea, being the first to land. It was then twenty minutes to 10 a.m.; within the hour the whole of the Light Division was landed; by eleven, the Rifles and Fusiliers were inspected, and were marching

* Lieut. Molesworth, of the Royal Fusiliers died at Malta on the 5th October, of fever contracted here.

from the left of the line, along the front of the other regiments, towards the right. "They ascended the slope of the hills over the cliffs, passing by the pickets and sentries who had been placed on outpost duty by Sir George Brown, and marched straight over the plain inland." In this position the division took post, and remained stationary during the four following days, which were consumed in disembarking the cavalry and stores of the army, and the preparations for the march upon Sebastopol.

The first real advance that was to bring England's matchless soldiery into actual contact and combat with the army of the Czar commenced on the 19th September, and it ended on the evening of the 20th. In the meantime, a small tract of country had been traversed, an insignificant river crossed, a formidable position stormed and carried by an assault—which has been incorrectly described as a "battle"—that shall for ever bear testimony to the invincible prowess of the British Army. That battle, we need not state, was the assault of the Russian position on the Alma, on the 20th September, 1854. It scarcely concerns the history of any particular regiment to enter into the strategical principles which compassed the operation, and in that sense it matters little whether they were good or ill; but, as in this case, they happened to be bad, their shortcomings afforded the Royal Fusiliers an opportunity of again displaying, in more than the fulness of its ancient glory, that brilliant valour which they displayed on the heights of Albuera, when, as now, the shortcomings of generalship had to be redeemed by the hardy courage of the soldier.

When the attack opened, the Light Division was the centre division of the British front, and slightly in advance of the general line; the second division was on its right, supported by the 3rd division; the first was on its left supported by the fourth. The divisional distances for deployment had not been well kept, the Light Division had "failed to take ground enough to the left; and when the deployment was complete, Sir George Brown had the grief of seeing his right regiment (the 7th Fusiliers,) overlapped by the left—nay, even by the centre—of Pennefather's brigade.* The fault was not retrieved: it was fruitful of confusion." It carried the 95th from its proper brigade, and brought it into action with the Light Division; but it cleared the front of the Fusiliers, and enabled Lieut.-Col. Yea to operate with his full strength. Yea, "a man of onward, fiery, robust nature, not likely to suffer his cherished regiment to stand helpless under the muzzles pointed down on him and his people by the skirmishers close overhead," led the regiment across the Alma, but for a moment was checked by the high bank of the Russian side of the river. At length, discovering a place of ascent, he pushed his horse to the top of the bank, shouting to the regi-

* "When the deployment took place, the 7th Fusiliers was in the rear of the 95th Regiment; and it afterwards, as will be seen, marched through it."—Kinglake's "Invasion of the Crimea." Vol. 2, p. 255.

ment: "Never mind forming! come on men, come on anyhow!" His appeal was promptly responded to, for the men rushed forward, and the Russian skirmishers fell back upon their battalions. The other regiments pressing forward as eagerly, in a moment the brigade stood exposed in front of the Russian batteries, and calling to be led on to the attack. At this time the Russians were pushing forward columns of infantry to stop the rush on the batteries, and no sooner had the Royal Fusiliers found themselves ready to advance than their path was stopped by a column of the Kazan regiment of infantry, containing not less than 1,500 veteran soldiers, who, placing themselves between the Fusiliers and the battery, accepted such battle as the Englishmen were prepared to give. They were both Fusilier regiments, and both were highly honoured in their country, for the English regiment were the Royal Fusiliers, the Russian the regiment of the Grand Duke Michael. They both accepted their task with a stern devotion, and the fight they made for the mastery was one of the most terrible in the whole affair. At a distance of fifty yards from the ragged chain of men that Lacy Yea held command over—for in the confusion soldiers of other regiments had become mixed with the Fusiliers, the Kazan column halted and opened its fire. To this the Royal Fusiliers responded with cheerful alacrity, and as much regularity as their disjointed condition would allow, yet, although the shots of individual soldiers and small knots of men had not, of course, the crushing power which would have been exerted by the fire of the 7th Fusiliers, when formed and drawn up in line, still the well-handled rifles of our men soon began to carry havoc into the dark-grey oblong mass of living beings which served them for their easy target. And though seemingly the front rank of the compact mass yearned to move forward, there was always occurring in the interior some sudden death, or some trouble with a wounded man, which seemed not only to breed difficulty in the way of an advance, but also to make the column rock, and then begin to look spotted and faulty. The distance was such as to allow of a good deal of shooting at particular men. Once Yea himself found that he was singled out to be killed, and was covered by a musket or rifle; but the marksman was so fastidious about his aim that, before he touched the trigger, a quick-eyed English corporal found time to intervene and save his colonel's life, by shooting the careful Russian in the midst of his studies. "Thank you, my man," said Lacy Yea; "if I live through this, you shall be a sergeant to-night." Whilst this long fight went on, it sometimes happened that the fire or impatience of one or other of the Fusiliers would carry a man into closer quarters with the column. Of those who were spurred by sudden impulses of this kind, Monck was one. He sprang forward, they say, from his place on the left of the Fusiliers, and saying: "Come on 8th Company!" rushed up to the enemy's massed battalions, ran his sword through a man in the front rank, and struck another

with his fist. He was then shot dead by a musket fired from the second rank of the column. Personal experiences of this kind were incidents varying the tenor of the fight; but it was by musket or rifle-ball, at a distance of some fifty yards, that the real strife between the two corps was waged.”*

Thus the fight lasted during the time that the other regiments of the Light Division were occupied in carrying the battery, and it continued in all its deadly stubbornness while those regiments broken and doubly decimated were swept back in retreat by the ponderous columns of infantry who assailed them when the guns could no longer be used. “When the storming battalions came down, the regiment was fighting still. When the despondency of the French Army was at its worst—when the head of Canrobert’s division was pushed down the hill by the ‘column of the eight battalions’—when along the whole line of the Allies there was no other regiment fighting—Lady Yea and his people were still at their work. When Evans, having crossed the river, was leading his three battalions to the site of the Causeway batteries, it was the 7th Fusiliers that stood fighting alone on his left; and nearly at the very time when disaster befel the centre of the brigade of Guards, Lady Yea and his Fusiliers were gathering at least the reward of their soldierly virtue.”

The resolute stand made by the Royal Fusiliers was unquestionably one of the causes of the success of the action. After the first flush of victory, when the broken regiments who had stormed the batteries had retired for reformation, and before the supports could be brought into action, the field of battle would have been clear, and in possession of the Russians, had not the Fusiliers, holding before them the immense Russian column, formed a *point d'appui*, upon which the 1st and 3rd Division could continue the attack. Within a very few minutes the regiment had lost one-third of its men; a colour was lost for a time by reason of the death of the officer bearing it, but never fell into the hands of the enemy; yet the regiment steadfastly maintained its ground until the moment came when the once-proud Kazan battalions melted away, and left it free to continue its course. In the confusion, as we have stated, many of the men became detached from the regiment, and fought with other corps, and in doing so, one of these men, a soldier named Pyle, particularly distinguished himself. He had joined the 23rd, and accompanying that regiment into the battery, he assisted Captain Bell, of the 23rd, to seize the only gun that was captured in position on that day. As was certain to be the case from the desperate nature of their service, the Royal Fusiliers were heavy sufferers. Captain the Hon. W. Monck, Col.-Sergt. J. Purcell, and Sergt. T. Everett, with thirty-eight rank and file were killed; Capts. the Hon. G. L. Hare, severely;† C. E. Watson, severely;

* Kinglake. Vol. 2, p. 414.

† He died of his wounds on board the ‘Andes,’ Sept. 22.

W. H. D. Fitzgerald, severely ; Lieuts. D. Persse, severely ; P. E. Appleyard, slightly ; P. G. Coney, severely ; the Hon. A. C. H. Croston, slightly ; G. W. W. Carpenter, slightly ; H. M. Jones, severely ; H. R. Hibbert, and Lieut. and Adj. J. St. Clair Hobson, slightly ; sixteen sergeants, one drummer, and 151 men were wounded ; two men missing.

After Alma the Royal Fusiliers proceeded with the Light Division in the march on Sebastopol. We need not enter into the extraordinary details of that curious operation, but go at once to the hour when the troops settled into their positions to take part in the siege of Sebastopol, an operation the nature and demands of which we do not hesitate to say, were but most imperfectly understood by the chiefs of both armies. To say that the siege of such a fortress by the scanty forces which commenced the investment was a most audacious effort, is to describe the thing properly enough, but it does not faithfully describe the state of mind of the men who instituted it. But just as it happened to be the consequence of the movement that had been initiated, it must be followed up, unless after the one brilliant victory that had already been secured, the campaign in the Crimea was to be admitted to be a false movement, and to be abandoned. But because the siege grew out of a desperate condition of things, and had to be undertaken with most inadequate preparations, it was not the less joyfully entered upon by the troops composing the English Army. These troops having already crossed swords with their foe on the open battle-field, and proved to themselves that he was then incapable of standing before them, were anxious to draw him from the stronghold in which he had taken refuge, and speedily end their march as conquerors on the last foot of ground that he dared to hold against them. Such an impulse was beyond measure noble ; it was worthy of the gallantry of the men who acted under it ; but it was a measure which speedily proved the weakness of the combination in which the soldiers were units, and told them that even the highest degree of military hardihood could be easily expended in vain, and for little profit, unless military genius was controlling it.

The Fusiliers took their turn of trench duty from the opening of the siege, and while in the trenches in their turn on one of the days between the 13th and 17th October, had Private James Henry wounded. They were again in the trenches on the 22nd, when the Russians opened a very heavy cannonade, during which the regiment suffered some casualties ; between the 22nd and 26th, it had ten men wounded. On the 18th, the day of the great bombardment, it was also on duty, and lost Corporal W. Linegar killed and Corporal Charles Blacker wounded. The regiment also suffered in the great sortie of the 26th, when it had Privates William O'Connell, John Wyland, Edward Carney, severely, William Hopes slightly, wounded, and on the next day it had Private Francis Bretton severely wounded. The regiment continued occupied in this wasting duty

until the terrible morning of the 5th November, when the advance of the Russians called it suddenly into one of the most deadly encounters, that has a place in the annals of war. On the first opening of the battle of Inkerman, such portions of the 7th, 23rd, and 33rd as were not then engaged in the trenches, were engaged under Brigadier Codrington to cover the extreme of our right attack, and to occupy the sloping ground towards Sebastopol. To describe their efforts in the scenes that followed is merely to relate a succession of hand-to-hand combats where tactics and the science of war were ignored, and where men grappled with their foe and struggled for a victory that could only be obtained by courage and endurance all but superhuman. In resisting the swarming hordes of Russians, the Fusiliers found themselves defending the batteries where Major Sir T. Troubridge was shot down and many men were lost; or as they could gain a few yards of ground by an incessant slaughter of their foes, in pushing back at the point of the bayonet the sturdy soldiers who assailed them with a vehemence that was even destroying them in victory. On the damp hill-sides of Inkerman, the few wearied soldiers who represented the British Army and struggled for its supremacy, covered themselves with a glory that shines transcendently brilliant beside the proudest deed of arms that history can relate; but they gained it at a terrible cost. Of the Fusiliers who took part in the combat, 8 men—Corporal R. Palmer, Privates J. Burnes, J. Broadman, G. Humphries, J. King, W. Dyer, T. Roach, and H. Wood—were killed on the spot; 5 officers—Major Sir Thomas Troubridge, severely, Capt. R. Y. Shipley, severely, Lieuts. H. W. P. Butler, severely, Capt. E. H. Rose, slightly, Ensign L. J. F. Jones, slightly, Sergeants W. Richards, slightly, T. Sargent, severely, 1 drummer, 46 rank and file, wounded, and 6 men missing.*

With the battle of Inkerman may be said to have commenced the unprecedented miseries endured by the English army as it kept watch and ward over the Russian garrison of Sebastopol. That battle had proved that nothing but the heroic bravery of the soldiers

* We may here give from "Letters from Head Quarters," vol. i. p. 417, an anecdote of the fight, which, as an instance of military steadiness and cool indifference to danger, shows that the *morale* and discipline of the British army can be brought to the very highest state of perfection; and that as in the days of the great battles of old so down to the present time, it is not "nervous enthusiasm," but the most solid courage that places the British soldier at the head of all warriors:—"I should also tell you an instance of great self-possession on the part of a sergeant, I think of the 7th Fusiliers. It was towards the close of the battle, and Lord Raglan was returning from taking leave of poor General Strangeways, and was going up towards the ridge. A sergeant approached in carrying canteens of water to take up for the wounded, and as Lord Raglan passed, he drew himself up to make the usual salute, when a round shot came bounding over the hill and knocked his forage cap off his head. The man calmly picked up his cap, dusted it on his knee, placed it carefully on his head, and then made the military salute, and all without moving a muscle of his countenance. Lord Raglan was delighted with the man's coolness, and said to him, 'A near thing that, my man.' 'Yes, my lord,' replied the sergeant, with another salute, 'but a miss is as good as a mile.'"

individually could redeem the great fault of holding a position that in a military sense was perfectly untenable; but, fortunately for England, the utter impotence of her army organisation was a thing that the English soldier could not admit into his consideration, and for Old England's sake, in the pride of their glorious martial ancestry, the gallant fellows were determined to hold on. Well for them had it been if their worst foes were the Russian soldiery. But a few days more of that dreary, storm-racked November, proved to them that their sufferings in battle were as nought. On the 14th November, the dreadful hurricane swept over them; two of the Royal Fusiliers were starved to death while performing their duty; and before the gale had died away, the regiment, along with every other regiment of the army, found itself shelterless, and robbed by the pitiless blast of the stores and necessities that a tardy government was only then beginning to send to it. The hardships that the winter introduced were such as no other army ever supported while continuing to hold its supremacy over one far superior in numbers;* but the prestige that followed from the deeds on the Alma, at Balaclava, and at Inkerman, was a mighty power, and able to protect those whom it covered from insult in the moment of their helplessness. But still this prestige could not subdue hunger and starvation, nor could it ward off fever and death; it could enable men to stand boldly and watch for the coming of men who dared not meet them in arms, yet as it was not food and raiment, it left the British army to perish miserably amid the horrors of an almost Arctic winter. For the first amelioration of their dreadful condition, the Fusiliers had to thank the indomitable will of their stern old Colonel; but his iron determination could not relieve them from their misery before February. As soon as the stores began to arrive, Lacy Yea remembered his Fusiliers, and insisted upon having the supplies. His efforts bore the following fruit:—"There are a good many wooden huts now (Feb. 2) erected at the front; almost every regiment has one or two as its field hospital; and two regiments of the Light Division (the 7th Fusiliers and the 77th regiment) have each got five huts completed, independent of their hospital. These two regiments are indebted, I believe, for their present efficient state to the rigid discipline that has invariably been maintained by their respective Lieut-Colonels. From the first these officers have never allowed the hardship of the campaign to interfere with their regular course of duty, and have never relaxed their discipline one iota more than was absolutely necessary; and the

* "January 11th.—Very hard frost again last night, the thermometer down to 18 degrees Fahrenheit, which, after the wet of yesterday, has made the ground like a sheet of ice. A man of the 7th Fusiliers committed suicide this morning, when on sentry, by blowing his brains out with his firelock. He told a comrade shortly before that he was determined to put an end to himself as he could not stand the hard work and severity of the weather any longer. He had been sixteen years in the regiment, and bore a good character."

consequence is, that although they have suffered more from losses in action than almost any other regiment in the army, from the brilliant and prominent parts they took at the battles of Alma and Inkerman, yet they are, I firmly believe, at the present moment in a more efficient state than any other regiment who landed with the army in the Crimea in September last." For more than a month the regiment had to pass through the terrible ordeal of shelterless hunger and raging disease, without even the excitement of a bout with the enemy. With the exception of the everlasting trench duty, and the consequent loss of a few men from time to time, the Fusiliers escaped attack until the morning of the 21st December, when the Russians made a sortie upon Gordon's battery and the works in advance thereof. Owing to the extreme darkness of the morning, the approach of the Russians could not be discovered until they were close at hand by the sentries, who, however, appear to have been posted too near the works to give sufficient alarm. The duty of this part of the trenches was then performed by eight companies of the 7th, 23rd, 33rd, and 34th. The sudden onset of the Russians took them all by surprise; they were aroused from sleep to find themselves pressed by the foe, and for a moment panic reigned, and some men were lost; but order being speedily restored, the Russians were driven out, and all the works again occupied. The affair cost the Fusiliers one man wounded.

The weary winter having exhausted itself, and the health of the troops being greatly redeemed by the supplies that indignant England poured into the Crimea when it was all but too late, activity returned, and the proper business of the siege was resumed. On the 22nd March, a sortie of the Russians took place to check the advance of the French towards the Mamelon. The attack extended from the French to the English trenches, where detachments of the 77th and 97th regiments were on guard. From the first the Russians pressed on with great vigour and determination, and, for the moment, the trench guard was overpowered. The attack then became general along the line, and fresh troops were sent up. "The gallant old 7th Fusiliers had to bear the gauntlet of a large body of the enemy, whom they drove back *à la fourchette*." A detachment of the regiment had been at work in the neighbourhood, together with a detachment of the 34th, under the direction of Lieut.-Col. Tylden, of the Royal Engineers, "who promptly made them stand to their arms, and led them with the greatest determination and steadiness against the enemy, who were speedily ejected from the works, and fairly pitched over the parapet, with little or no firing on our part." Both detachments, however, suffered rather severely in the fray. The Fusiliers had Capt. the Hon. Cavendish Browne, Sergt. William Bell, and Pte. Michael Cunningham killed, Lieut. J. McHenry, severely, and eight rank and file wounded. The courage displayed by Capt. Browne was most conspicuous. He was severely wounded at the commencement of the attack, but

refused to go to the rear, though nearly fainting from the loss of blood. He led on his men, encouraging them by voice and gesture to the front, and when his body was found it lay far in advance of our line, with three balls in the chest. Sergeant Brittle of the regiment also greatly distinguished himself. He, with a few of the men, fell in with a portion of the 90th, under Capt. Vaughan, and assisted to drive the enemy out of the mortar battery, then in their possession.

From this time the conduct of the siege grew more lively, affairs resulting from endeavours to establish rifle pits being of constant occurrence. Between the 26th March and the 5th April, the Fusiliers had many casualties; Lieut. L. J. F. Jones was slightly wounded, one man was killed, and 15 men wounded. The first serious attack upon the enemy's permanent works took place on the nights of the 7th and 8th of June, when the French assaulted the Mamelon and the English the Quarries. In the English attack the Fusiliers took part, the 88th and 7th rushing out from the right of the zigzag approach on the left of our advanced trench; the 47th and 49th regiments starting from the left of this approach. The first rush got in the works at an easy cost, but during the night the Russians sent up powerful reinforcements, and during the six consecutive attacks made by these reinforcements, a very bloody struggle had to be sustained. But British troops in possession of a place are not easy to disturb, and, although the Russians came on gallantly and in overwhelming numbers, they were everywhere met at the point of the bayonet, and repulsed in the most summary manner. Among those who were mentioned in despatches for their gallantry on this occasion was Lieut. H. M. Jones, of the Royal Fusiliers. The regiment had Major Fredk. Mills, Capt. W. W. Turner, Lieuts. H. M. Jones, L. J. F. Jones, and G. H. Waller, all slightly wounded; Col.-Sergt. W. D. K. Dobbie, Corporal Geo. Parker, Privates Thos. Lattimer, Thos. Hargreaves, James Gilvey, William Cook, Benjamin Jagger, Thos. Wilson, William Thompson, James Ward, John Brown, Joseph Hornsell, killed; Sergeants Henry Martin, John Stocks, Jonathan Richmond, all slightly, Corporal John Ross, dangerously (since dead), and 70 men wounded. Before this affair, in trench duty between the 4th and 7th, the regiment had lost 8 men missing, and on the 9th it had Capt. J. H. Cooper, slightly, and Private John Lewis, severely wounded, and on the 10th it had Corporal Geo. W. Henly slightly wounded.

At this period events were thickening; the crisis of the siege seemed to be at hand. All foresaw that the assault could not be long delayed, and it is no exaggeration to say that every man in the Allied Army was longing for the time when it should arrive. At last the guns were getting a mastery over the artillery of the place; at last the frowning earthworks that for months had seemed to swell

as if by the very weight of shot they had swallowed up in the effort to destroy them, were so battered, that now nothing but musketry and grape, and, last of all, the bayonets of the stubborn defenders, prevented the Allies from rushing into the place. In a few days it became known that the attempt was to be made, and it was to be on the 18th of June, the fortieth anniversary of Wellington's greatest battle. Confident in their prowess, the soldiers looked upon the day as most auspicious, and in their confidence they fondly believed that ere the sun set on that day their banners would wave over the blood-stained ruins of the fortress, and the war would be virtually terminated. Alas! vain confidence! how soon they were to be undeceived. The arrangements being made, the right of the assailing columns, that representing the Light Division being furnished by the 23rd, 33rd, and 34th regiments, under Col. Yea, was to advance against the east face of the Redan. We all know the story but too well. From the first period of the onset the weakness of the organisation clearly foreshadowed the failure of the attack. With columns far too weak, and without any efficient support, the men were sent forward. "The moment they came out of the trench," says Russell, "the enemy began to direct on the whole front a deliberate and well-aimed *mitraille*, which increased the want of order and unsteadiness caused by the mode of their advance. Poor Colonel Yea saw the consequences too clearly. Having in vain tried to obviate the evil caused by the broken formation and confusion of his men, who were falling fast around him, he exclaimed, 'This will never do! Where's the bugler to call them back?' But, alas! at that critical moment no bugler was to be found. The gallant officer, by voice and gesture, tried to form and compose his men, but the thunder of the enemy's guns close at hand and the gloom frustrated his efforts; and as he rushed along the troubled mass of troops, endeavouring to get them into order for a rush at the batteries, a charge of their deadly missiles passed, and the noble soldier fell dead in advance of his men, struck at once in the head and stomach by grape shot. A fine young officer, Hobson, the adjutant of the 7th, fell along with his chief, mortally wounded." From the very outset, therefore, the assault had failed, and it had failed in a manner that harrows the heart of the English soldier, for in no case had the storming columns, although from no lack of bravery and determination, succeeded in reaching the works of the place. The fact is, they were simply destroyed almost before they had time to move out. Heavy as was the suffering of the Light Division, the loss that pained them most was the death of the Colonel of the Royal Fusiliers. His character has been worthily painted by Russell, and the portrait must not be omitted from the Record of the Services of the Royal Fusiliers. "Under occasional brusqueness of manner he concealed a most kind heart, and a more thorough soldier, one more devoted to his men, to the service, and

to his country, never fell in battle than Lacy Yea. I have reason to know that he felt his great services and his arduous exertions had not been rewarded as he had a right to expect. At the Alma he never went back a step, and there were tears in his eyes on that eventful afternoon, as he exclaimed to me, when the men had formed upon the slope of the hill after the retreat of the enemy, 'There! look there! That's all that remains of my poor Fusiliers! A colour's missing, but, thank God, no Russians have it.' Throughout the winter his attention to his regiment was exemplary. His men were the first who had hospital huts. When other regiments were in need of every comfort, and almost of every necessary, the Fusiliers, by the care of their Colonel, had everything that could be procured by exertion and foresight. He never missed a turn of duty in the trenches except for a short time, when his medical attendant had to use all his efforts to induce him to go on board ship to save his life." Though Col. Yea was the only officer killed upon the field, the regiment, nevertheless, suffered severely. The Adjutant, Lieut. J. S. C. Hobson, died of his wounds, Major A. J. Pack, severely, Capt. P. Appleyard, slight contusion, Lieuts. L. J. F. Jones, severely, the Hon. E. Fitzclarence, dangerously, C. Malan, severely, Lord R. Browne, slightly, G. H. Waller, slightly, W. L. L. G. Wright, slightly, were wounded; Lieut. N. O. Robinson, missing; Sergeants David Miller, Michael Berghin, Frank Williamson; Corporal A. K. Bramham, and 11 men were killed; Sergt.-Major William Bacon, slightly, Corporals Henry Oaks, William Buck, Matthew Hughes, severely, Samuel Flack, Henry Edwards, Andrew Nutley, slightly, and 48 men wounded.

Thus ended the first assault on Sebastopol, if an operation can be called an assault which was never extended beyond the effort to get the assaulting columns into the open from the trenches, and ready for a rush. It was a grievous and bitter disappointment to the English army, for it was the first proof they had received in the Crimea that they were not invincible. It was a sense of painful chagrin for the men who had stormed the heights of Alma, and had held the blood-reeking slopes of Inkerman in defiance of all the superior numbers that a subtle and skilful foe could hurl against them, to find that there were positions where the soldiery whom they knew themselves able to conquer could hold them at bay or rudely force them back with the most consuming slaughter. But it was now proved to be a fact—a fact, however, that the soldiery could not understand. They did not know that their leaders had fallen grievously to the rear in the pursuit of military knowledge; they did not understand that they were the victims of a system which had only weakness and practical inefficiency to recommend it to the consideration of governments who were lulled into torpidity, and incapable of foresight and prompt reformation of the effete and obsolete. They felt that in the wild and soul-stirring charge there were no troops on the face of the earth who could stand against

them ; how, then, was it that they were beaten ? They were beaten because a force higher than theirs were called into play, a force that could be furnished by their enemies to the largest extent, but was comparatively unknown to their leaders.

(To be continued.)

RUSSIA, CENTRAL ASIA, AND INDIA.

BY CAPTAIN SPENCER.

PART II.

In order to form a correct appreciation of the chances in favour of the ultimate success of the Russians in their well-digested intention of establishing themselves in Central Asia, it will be necessary to glance at the present state of Continental Europe, more especially Germany and Austro-Hungary, whose future cannot be very assuring in the prospect of having, ere many years pass over, such a powerful neighbour as Russia is certain to become when she succeeds in attaching to her rule such a warlike nationality as the Tartars of Central Asia—a people who in the olden time not only conquered China and India, but Old Russia, and even threatened to subjugate the whole of Europe.

Even with the best intentions, owing to their own intestine troubles, neither France, Germany, nor Austro-Hungary have it in their power to arrest the march of the Russians for a single day in Central Asia. The case might have been very different had France remained the first military power in the world ; then, indeed, a missive from the Emperor of the French, on the ground of the equilibrium of nations, might have had the effect of arresting for some little time to come the fulfilment of an event which was sure to come in its own due time.

When we reflect upon all this, it is impossible not to admire the tact and skill with which that half-Slavonian, half-Tartar people, the Russians, have always displayed, when they resolved on carrying out any great enterprize which might tend to their own advantage. The world would never have been outraged by the partition of Poland, had not France and England, then the two great leading powers of the day, been at war with each other, to say nothing of the ever-to-be-lamented contest the latter power had with her rebellious subjects in North America ; and similar advantages have been taken of the late war between France and Germany to complete the conquest of the whole of Turkestan, as well as to render the Crimean Treaty a thing of shreds and patches ; and now, owing to the implacable hatred manifested by

the French towards their conquerors, the Germans, she can do as she pleases in Central Asia.

On the other hand, if we turn to the Ottoman Empire, we shall find its wsek-minded sovereign, who only a few years ago was raised to rule and power from the seclusion of the harem, has now become, owing to the all-prevailing influence of the Russian ambassador, little better than a satrap of the Czar of Russia; then there is the threatening attitude of that large army of destruction, the Red Republicans and Communists of France and elsewhere, to which we may add the equally numerous army of Ultramontanes and their adherents, each in their way bent on mischief, and forming as they do the most efficient allies Russia could have found to assist her in the great enterprize she has so craftily undertaken at the present moment.

It is true there are always great wide-world interests which ought to prevail over the narrow views of self-gain, illiberality, and blind jealousy, and this opening by Russia of an immense country hitherto scarcely known by name to the commerce and industry of the world is at once a great and magnanimous undertaking. Still, we cannot divest ourselves of certain gloomy forebodings in the future as to Turkey, Germany, and Austro-Hungary, having as a neighbour such a powerful empire as Russia is certain to become when she succeeds in attaching to her rule so many millions of men just in that state of civilization so easily handled as an instrument of conquest, should any of the future rulers of Russia feel inclined to play the *rôle* of another Napoleon the First.

Although Russia, comparatively speaking, may be said to be in the very infancy of her strength, and in this great progressive age of ours it is impossible to say how great, wealthy, and powerful Germany and France might become, if they would only bury in oblivion the past, and unite in keeping a watchful eye over Russia, and what she is about to do, since it cannot be expected that a great overwhelming empire, as this great Northern Colossus is certain to become, will be content to see the Bosphorus and the Dardanelles remain in possession of such an effete power as Turkey undoubtedly is—a possession which so effectually bars the Russians in this part of their dominions from everything in the shape of a free and direct communication with the Mediterranean and all the other seas of the great mercantile world.

That the attempt will be made in its own due time there cannot be a doubt, and we know that where there is a will there is always a way. In this instance all that Russia would have to do would be to get up a successful insurrection among her co-religionists, the rayahs of European Turkey, and then, under the pretence of protecting their interests, at once and at the same time pour an overwhelming army into Turkey by way of Persia and the Black Sea. The continentals, whose interests in every-

thing connected with the progress of Russia are tenfold in proportion to those of Great Britain, if they are wise, will neither slumber nor sleep, they must be prepared, *coûte qui coûte*, for an eventuality which, in all human probability, will lead, at no very distant day, to another war of giants, of mighty import to the future of Continental Europe.

Our volatile neighbours, the French, with their habitual ignorance and contempt of everything that is not French, every now and then amuse themselves by portraying in the most startling language, the rapid advance of the Russians on India, and how Nemesis is about to chastise the selfish islanders for their base desertion of a faithful ally in his hour of need, without for a moment reflecting that the establishment of the Russians on the banks of the Bosphorus would have the same effect upon the future of France as it would have upon that of every other continental State.

Not so with the reflecting, practical German, who sees in the triumphant career of his gigantic neighbour in Central Asia a subject of the gravest importance, and the feeling has become so general during the last month or two in Germany and Austro-Hungary, as to create serious misgivings as to the possibility of preserving peace for any length of time between rival states whose interests are so diametrically opposite. In short, you now hear on every side, alike in Germany and Austria, that if the peace of Europe is to be preserved, the Slavonian Tartars, as the Russians are now designated, must be driven from all those settlements they had previously made by fraud and violence on the shores of the Baltic; in addition to which, hints are every now and then thrown out as to the political necessity of establishing an independent Poland, whose inhabitants, we all know, are highly embittered against their old enemy, the Russians, and who, of all the Slavonian nationalities, was by far the most enlightened, brave, and enterprising.

Now as distrust naturally begets distrust, the hostile feeling in Russia against the Germans is, if anything, even more intense; the whole of the political publications of the day have taken up the subject, warmly encouraged as they are by the Imperial Prince of Russia, who, it appears, never loses an opportunity of expressing his dislike against Germany and everything German. It was only a few days ago that the *Moscow Gazette*, and in a leading article, bitterly complained of the unsatisfactory state of the fortification of the Baltic ports, alleging that Kronstadt, in the event of a war with the Germans, could not resist a serious attack, and that even St. Petersburg was not safe from a bold attack on the part of a people so inured to war, and so formidable as a great military power. The *Invalides* and the *Russian World* constantly advocates fresh armaments and new military reforms. Since then, we learn by telegraph from St. Petersburg that extensive works have been

undertaken with a view of transforming the well-known fortress, Brest-Zetivisk, into a sort of inland Gibraltar. In addition to which, the defensive works of Riga and Revel are to be greatly strengthened, and in order that everything connected with these works should be constructed in the best possible manner, the large sums of between two and three millions of florins have been granted by the Government. Do not all these things indicate, notwithstanding the seeming cordiality of the Princes of the House of Hohenzollern and Romanoff, that a serious conflict is looming in the future between the Russians and the Germans?

Be this as it may, it is very plausible to imagine that the Germans, in pursuing the policy they learned from the French, think themselves justified, on the score of the equilibrium of European power, in lopping off a few provinces from the rule of their gigantic neighbour, as an equivalent for the immense territory so lately acquired in Central Asia, and argue that in order to be successful the sooner it is done the better. Knowing something of the organization, arms, and discipline of the Russian army, we think we can safely assert that it could not arrest, for even a single day, the triumphant career of such a formidable military force as that now at the command of United Germany. Then there is Austro-Hungary whose interest in weakening the power of Russia is paramount to that of Germany, hampered as she is with more than fifteen millions of Slavonians, for the most part Russian Panslavists.

There was a time and not very distant, when anything like the possibility of a misunderstanding between Russia and Prussia would be looked upon by the rest of the world in no other light than the ravings of a political madman. But the great Franco-German war which so unexpectedly elevated Prussia to the highest place among the great military powers of the world, has given an entirely different direction to the aspect of affairs. The Russians can now no longer ride rough-shod over the Fatherland as they were wont to do in the days of the old German Bund. Hence their jealousy and the sudden dislike they have taken to everything German, aggravated not a little by the prospect of a collision with a people whose political interests have become so diametrically opposed to their own. On the other hand, how could it be expected that a great patriotic, sensitive people like the Germans, ever awake to their own interests, could remain indifferent spectators of what is now passing in Central Asia, with the certainty of having lying on their frontier one of the most formidable empires, in point of compactness, territory, and population, that Europe had seen since the days of the Roman Cæsars?

Looking at the question in this light, we can scarcely blame the stir the Germans and Austro-Hungarians are now making with respect to the advance of the Russians in Central Asia. However, as there are two sides to every question, it was very natural that

Russia, by every means in her power, should endeavour to obtain possession of a country that not only affords her a never-failing market for the productions of her factories, but an indispensable highway of traffic between European Russia and the rich and densely populated districts of China and India. Viewed from this aspect, the most violent Russophobic must at least admit, that an undertaking of such a nature as this is perfectly legitimate; that no foreign power, however much its interests may clash, could object to it, else we should see the world remain at a standstill, and everything in the shape of the enlightenment and civilization of a semi-barbarous people at any time be liable to the same interruption. Although it must be admitted that Russia is far behind our other great European States in civilization and enlightenment; her people, nevertheless, taken in the mass, are sufficiently educated and orderly to become in the hands of a beneficent Providence, the destined instrument for bringing no small portion of the vast hordes of Asia out of the night of barbarism to, at least, the early twilight of a civilization, which must continue to increase and expand as the people become more accustomed to the usages of civilized life, and with it, the development of industry and commercial pursuits.

This, at least, is certain to be one of the most striking results of Russian rule in Central Asia. With such an accession of territory she may or may not become more aggressive to her neighbours than she has ever been before, and her character does not stand very high for the purity of her dealings with any State that might have happened to stand in the way, when she had resolved in effecting a more important conquest, as instanced in Poland, the Crimea, Circassia, and elsewhere; and most assuredly neither Turkey, Sweden, Norway nor Denmark can ever forget what they have lost, nor the manner in which they were deprived of it. Still, if ever there was a question in which it may more truly be said that the day's evil is sufficient, it is that of the establishment of the Russians in Central Asia.

It would be idle, and altogether out of place, to speculate upon what may or may not be the conduct of a government, and a people, whose antecedents do not speak highly in their favour; and although the Russian mind may be wanting in power and originality, being better able to execute than to direct; better able to imitate, than to lead; still, when placed in comparison with that of the inhabitants of some of our older countries in Europe, wrapt up in their long history, and that eternal straining after the attainment of objects out of place and out of time, Russia may be called highly progressive—as little likely to fly too high for her own safety, as to descend too low into the abyss of political passion and disquietude.

That antagonism, in some shape or other, between two great European Powers each in their own way, and from their peculiar

position, entrusted with the mission of commanding and controlling the destinies of the whole of Asia, may be looked forward to with certainty, originating no doubt in the first instance, respecting the political future of certain countries and districts, lying on the frontier of India, such as Affghanistan, Khalab and Yarkand, all of which may be said to girdle the north-west frontier of our great Indian Empire, and to be, as it were, the very walls of our fortress. These, in order to make security doubly secure, must be looked to in time, and such stipulations come to, as to secure them against any inroad that might take place on part of the Russians or their Tartar subjects. These are the limits which Russia must not be permitted to pass, if we would preserve our influence in Asia.

It is scarcely necessary to remind the intelligent reader that every one of these States to which we have alluded, being situated in a great mountain district, and consequently strong by nature, might be made at a very little trouble and expense capable of resisting any attack on the part of the Russians, should they at any future time feel inclined to pit the Russian bear against the British lion. We may also add that every one of these States is perfectly independent and inhabited for the most part by a fine, robust, hardy people, fully imbued with that love of country and martial instinct, which seem peculiar to the mountaineer in every part of the world.

Among these outlying States of our great Anglo-Indian Empire, we did not think it necessary to mention Cashmere, as that beautiful and highly important country is not only tributary to the Indian government, but bound to it by the strongest possible ties of sympathy and self-interest. We have now only to say, that if such a policy as this to which we have alluded, was successfully carried out, ere a few years pass over we should find that every one of those States would become under the guardianship of mighty England perfectly able to defend themselves. In short, we have so many means in our power offensive and defensive to resort to, in case of need, as to feel certain that an executive so enterprising and withal so just and conscientious as that which now characterizes British rule in India, will leave nothing undone that prudence can suggest or a wise policy recommend, in order to insure the tranquillity of the millions of human beings committed to its charge. In every case a clear understanding must be come to, and in time, that the sphere of Russian influence should not extend to these border lands. If this were done, a feeling of security would soon spread itself all over Hindostan, and once established we need not give ourselves any further trouble as to what is to be the fate of the Russians in Central Asia.

We do not altogether make these assertions on our own responsibility, it is the united opinion of gentlemen who have spent many years in India, and held there offices both civil and military, of

the highest trust and confidence. It is also highly satisfactory, and much to the credit of the Indian Government, to be able to remark that there never was before such a well-established confidence in the minds of the people of India, that they have now nothing to fear either from insurrection at home or attacks without from a foreign foe. This has been in no small measure due to the supremacy British rule has acquired in India, since the suppression of the Sepoy mutiny.

This, together with the construction of railroads, the development of the resources of such a vast territory, the education of the people, and their admission to all the rights and privileges of a British subject, has produced that calmness of feeling everywhere now observable, and although it is not dissembled that a possible political rivalry may be in store, and an equally possible military hostility, should the Russians continue to be what they have hitherto been, an aggressive neighbour, yet the spirit in which the events of the future are regarded, even by the alarmists, is one more of precaution than panic. In fact, the greater number of our fellow-subjects in India now agree in regarding the advance of Russia to the frontier of India, as a necessity which it would be equally impolitic and futile to resist.

Surely there is nothing that can prove more satisfactorily than this the popularity of British rule in India. Still, there is much work yet to be done, more especially for the pruning-knife of the reformer. Above all, we must continue, now more than ever, the exercise of that wise policy of enlisting on our side our Indian fellow-subjects of every class. Every man who has spent a few years in India must be aware how great is the influence of the princes and chieftains of that country, and how much they can effect, either for good or evil. That they are attached to the rule of her Majesty, and feel proud of being members of the greatest and most powerful empire in the world, there cannot be a doubt, still you everywhere hear them say that they have little or no share in the government of an empire in which they hold so large a stake.

Perhaps it would not be out of place, now that our observations have been confined to India, if we were to remark that a great stir has of late taken place among the leading men of India, with a view of establishing local councils on a more extensive scale, which would bring the entire people into frequent and uninterrupted intercourse with the heads of the Government, and the leading members of the administration—a reform which would undoubtedly have the effect of disseminating far and wide among the inhabitants of India an appreciation of the justness of our rule.

Then there is the want of something that might replace the present immoral and vexatious way in which the princes and chieftains of India raise their revenue of support. This is one of

the crying complaints you everywhere hear among the poor and industrious classes. Now, as a tax on the transit of merchandize, as we see it carried out in Germany (a country very similar to India), appears to us as one of the most legitimate sources of revenue to a ruler of men, we cannot but think that its introduction into India would be a great boon not only to its native rulers but to the people in general. There would then be a definite source of taxation, which, while it would amply suffice towards the maintenance of the various petty rulers and chieftains of India, it could not in any shape be found oppressive to the people, independent of the impetus it would give to trade, and at the same time the encouragement it would hold out to all its various governments to construct roads, and adopt every other possible appliance that might have the effect of securing as large a share as possible of a revenue so easily acquired, and so profitable.

As an illustration of the ill effects the present system of taxation employed by the native princes of India has upon the industry and domestic happiness of the people in general, we have only to quote a few extracts from a letter we have just received from a friend in Cashmere. It would appear that its Maharajah, who is by nature and education one of the most despotic tyrants that could be found in any part of the despotic East, not only taxes every thing that could possibly enter into the mind of a mean, crafty Eastern, but carries off, every now and then, through the instrumentality of his ruffianly *employés*, a full half of the produce of the land, and the manufactures of the country. While added to all this, his system of government is so abominable and tyrannical that the entire people would rise *en masse*, and place themselves completely under the rule of the British, if they could only find a chief possessed of sufficient courage to lead the movement.

As to the land question, it is altogether so faulty throughout the whole of India that it would take a volume alone to make it intelligible to an English reader; all that we can say in our present article is, that everything in connection with the state and possession of land is much the same in India as it is in Turkey and Central Asia. We know that the subject has been frequently mooted by the different rulers of India, but nothing practical has yet been done to remove the restrictions the native princes of India have imposed upon its sale and transfer. Yet, of every other measure, there is none that would be more thankfully received, or tend more towards attaching the great mass of the inhabitants to British rule.

In a word, we must be prepared, and that without loss of time, to meet, and, as far as possible, satisfy the wants and ambition of a new generation, far more highly educated, more energetic, and far more confident of their own abilities than any with which we have hitherto had to deal; and now that the reign of Liberalism

has found a footing in India, and that equal rights and privileges with those of an Englishman have been secured to all, we must expect to see the well-educated natives of India enter the list and compete with us for their share in the administration of their native land.

It was only the other day that an association of native gentlemen took advantage of the presence of the Viceroy at Bombay to press upon his Excellency the expediency of throwing open the Civil Service unreservedly to natives of India, by allowing examinations to be held in India, urging at the same time the doctrine of equal rights and a free career to every class of Her Majesty's subjects, whether they be natives of India or of British origin, concluding with the remark that no other measure of the day would tend more to the well-being of the vast population of India, and the stability of British rule; and now that telegraphy and steam have abolished distance, and that London, the great metropolis of the British Empire, may be said to be as near Calcutta as Dublin and Edinburgh, there is no longer the same danger to be apprehended as in the olden time that any insurrection of the people of India would be ultimately crowned with success. At least the blame would entirely rest upon ourselves should we at any future time be found unprepared to meet the emergency.

In short, we have a great and glorious mission before us in India, and if the administration of that great country is only carried out in the same just and conscientious manner that has hitherto marked the rule of a succession of able and well-meaning Viceroys, it is not too much to say that India, with all its natural advantages, is certain to become, ere another generation has passed away, one of the most prosperous, as it is one of the most interesting, portions of our hemisphere.

FOREIGN SUMMARY.

Paris. December 24.

The Assembly, from whose meeting so much was, or was expected to be expected, after a very pretty quarrel with the President, has dispersed for a fortnight or so, and the country, I am sure, breathes all the more freely. We do not, as you know, make so much of Christmas as you Islanders do—New Year's day is our time for pleasure, and to enjoy it, our thousand and one factions have concluded an armistice. When the Assembly again meets, every one seems to expect the storm to rage more loudly than ever; and it would hardly be reasonable to think otherwise. We have, at present, M. Thiers and the Assembly, each in reality claiming supremacy; we have a Committee of Thirty, nominated to settle the

question of the responsibility of Ministers, but apparently resolved to reduce the power of the President to limits that would be very unacceptable to him; and we have M. Gambetta, who apparently designs to ruin him by claiming him as a partisan of Revolution. The Imperialists, too, are busy, as is proved by the address to the Empress, for getting up which in their regiments several officers have lately been sent to Algeria, but, as is believed, have left successors behind them, fully capable of carrying on the work, and well provided with cash. So there are storms enough ahead, but everybody seems agreed to forget that unpleasant fact for the present, and to talk and act as if the "crisis" was really over. The other crisis, of inundation, which laid a good part of Paris under water, we hope has passed away, and we are going to be as merry as if we had never heard of either Bismarck or the Commune. If, contrary to rational expectation, what has been done during the last fortnight should prove to be permanent, MM. Thiers, Dufaure and Co. have done what was never before accomplished in this country; that is, they have achieved a bloodless revolution. The debates, as you know, have been long and fierce, but the Left has decidedly had the worst of it, and the Right is jubilant accordingly. "See at last," crows 'Le Français,' "our country possessing a Government which has declared itself resolved energetically to combat the enemies of social order! see that Government with a majority of five hundred!" This is counting of heads rather than weighing of reasons, and remembering the fact, that the Empire also reckoned its majorities by hundreds, not merely on one, but on many occasions, neither the Conservative Republic, nor its President, nor even the Assembly, has very much to boast of in the matter. It may seem to those who choose to be deceived, that they have "taken a pledge from Fortune," but to others it merely looks like putting off the evil day. We are no great students of history, but a glance at Guizot's "Cromwell" might not be amiss, as shewing us what we are, and whither we are tending. Like you after the decapitation of King Charles, we have an Assembly which a good many people want to get rid of, and we have in our "Conservative Republic" the Government, that is, of M. Thiers, a counterpart of the Council of State, which professed to be the organ and mouthpiece of the Long Parliament. But then, as now, there was a soldier, waiting for the suitable time to solve the problem with his sword, and that sword was thrown into the scale accordingly. So, as very many here think, we have a Cromwell in embryo. Who he may be, whether he is now well known, or is as obscure as the brewer of Huntingdon once was, matters not. The conviction is firmly fixed in most minds, however it may suit the Right just at present to represent everything as settled by the vote of the 16th, and such convictions have a strong tendency to work their own fulfilment.

The President now occupies the Palace of the Elysée, and,

according to Imperial precedent, will have a New Year's day reception there. The curious are already speculating on what he may say to the *corps diplomatique*, particularly as there is an impression abroad, that Prince Bismarck has let it be known, that he is supremely indifferent as to who governs in France so long as the instalments of the indemnity are duly paid. This is looked on as rather ungrateful, after all the odium that M. Thiers has incurred as "the Berlin tax-gatherer."

We see with infinite satisfaction the Pyrrhic victory achieved by Prince Bismarck over the Prussian House of Peers. He has carried his Counties Administration Bill by a majority of twenty-five; exactly the number of new nobodies "kicked up-stairs," as one of your English writers said. Except six Generals, I understand they are all civil employés, and we may judge how they will be received by the old landowning peers, who cordially hate officials of every grade. Already the Liberals have begun to clamour against the Prince for not having made fifty, instead of five and twenty "Lords," and he is likely very soon to find out into what a dilemma he has plunged himself by his alliance with Liberalism. Liberalism means something little short of Revolution, all the world over; but when brought into contact with old feudal Prussia, it will too surely be found to result in Anarchy. In other countries, there is a military despotism to "save society," after a fashion; but the happy Prussians have had that for many years already, and Liberalism can only rear its head as it now does, because it has already beaten down the swordsmen. The Prince very well knows this, and he is endeavouring to change his position of Prussian Premier, remaining only Chancellor of the Empire that he has created. Excess of work attaching to the two posts is the reason given to the world, but you may be well assured there is something behind. Failing health, shewing itself in premonitory symptoms of paralysis, is the favourite theory here, and it may be true, or it may be only that the wish is father to the thought; for certainly no man, in modern times at least, has ever rendered himself so detested by a whole nation as he has, and if, not one, but all the ills that flesh is heir to could be concentrated in his unhappy person, people who consider themselves exemplary Christians would be ready to chant a *Te Deum*.

It is said that no demand for money will be made in the next German Parliament, for the construction of the fortresses which are rising on every hand; our plunder is to pay for all. We certainly derive a grim satisfaction from seeing Germany converting her spoil to a purpose which shews that, after all her grand successes, she fears invasion. The new forts, it is worthy of remark, that are in progress about Strasbourg are all on the German, not our side of the Rhine, and are manifestly planned, for one thing, to retard the march of French columns into the Black Forest and the Southern German States. But they will also serve as garrisons

to bridle those States, and keep the Catholic South in a forced partnership with Berlin. In the North of Germany, too, we see the same state of things. The mighty Hansa, of which I spoke last month, appears to be the last effort, as it was the first, of purely German shipbuilding, and it is understood that the maritime nations are not to be utterly annihilated just yet. On the contrary, German engineers are now busy with the erection of shore batteries, and studding such harbours as the Baltic affords with torpedoes; which looks very much more like preparing to meet an attack than anything else. The happy concord established by the meeting of the three Emperors at Berlin quite precludes the idea that a hostile visit is expected from Cronstadt; Austria is not a very great naval power; and you, after standing coolly by in the late war, can hardly be suspected of belligerent designs. So what can the peace-loving Germans be afraid of? Our fleet, to be sure, is respectable in number, something like 160 vessels, 27 of which are ironclads, with some 30 000 seamen, but we are not likely to send them to the Baltic till we are quite able to cross the Rhine. We have to pay dearly for the experience gained in the late war, and, however fiercely or inconsiderately some may talk, we shall not rashly plunge into another, though we live, as I may say, mainly for the purpose of making it.

I see, from the last report of the German Immigrants Society of New York, dated only last month, that 110,888 of its clients landed there in the ten months of the present year, being an increase of 41,329, as compared with the highest year hitherto. It is remarked, also, that an unusual number of young men, who had just attained, or were on the eve of attaining, the military age, were among them, the inevitable conclusion being, that they had turned their backs on the Fatherland to avoid the conscription. The Imperial Government is said to be seriously disturbed at this, and in Germany throws every possible obstacle short of military force in the way of the emigrant; but not so in the case of their "estranged brethren." Emigration from Alsace-Lorraine, indeed, is rather encouraged than otherwise, and the Havre companies are allowed freely to advertise "*grande réduction de prix de passage pour l'Amérique*," in the "*Industriel Alsacien*" and other Mulhouse papers, which also have been permitted to publish a statement of the application of the *Temps* subscription (130,000 francs) to assist the emigrants; there is a sinister purpose in all this affected liberality. These journals, too, swarm with advertisements offering properties of every description for sale; and if the Germans do really want to get rid of the Alsacians, it seems as if their wish would be gratified.

It is too early as yet to speak very definitely as to the extent of the migration from Alsace-Lorraine. Perhaps we have overrated it at a quarter of a million, but it is quite certain that the Germans have underrated it at some 15,000. However, the actual number is beside the question. It is hard enough to have to leave the land

of your birth, but it is harder still to be obliged by circumstance, to remain in it as the bond-slave of the Prussian drill-sergeant. For it really comes to that at last. The iron discipline of Berlin has—by taking the world by surprise—that world which declines to breathe only the barrack-room atmosphere—put the sword above everything else for a little while; but as one knows better than Prince Bismarck that such a supremacy is a very dubious matter, and that if the grasp on the throat of the victim is relaxed for a minute, the tables run very great danger of being turned. It is very like the case of having a wolf by the ears—you can neither hold nor let go. Rome employed one subject race to keep down another, and so Berlin hopes to make the natural hatred of the Alsace-Lorrainers to all things German, a powerful instrument in coercing the Southern States into obedience. With the same vile design, everything is very studiously done to reduce Alsace itself to the state of semi-civilisation that prevails in East Prussia. Far from forgetting that they are dealing with a people who have long been accustomed to the rule of law and legally appointed magistracy, they remember it but too well, and every German official, from the highest to the lowest, would seem to have but one end in view, to make their rule so bitter, that the whole native population may at last be driven out, and their place supplied by “real Germans,” to whom the schoolmaster-discipline of Berlin is a matter of course.

A notable specimen of this discipline may be seen in a resolution adopted a week or two ago in the Town Council of Strasburg, in which, of course, the Germans are all in all. This enlightened body has undertaken to regulate education, and accordingly has decreed that in no school shall more than one hour a day be given to the study of French, the wishes of parents, or their ability to pay for more, notwithstanding. The government of a conquered province is, no doubt, a difficulty in any case, even when the rulers are inclined to be moderate and conciliatory; but when they are capable of a piece of brutal stupidity like this, what can be expected? The answer is, “curses not loud, but deep,” and a war to the knife, whenever the opportunity occurs.

Things are rapidly going from bad to worse in Spain. To say nothing of previous scenes in the Chamber, which bring Representative Government into contempt, there is an ugly suspicion that the recent illness of King Amadeo was the result of poison; and the Republicans have taken arms as well as the Carlists. They were suppressed without any great trouble at Madrid, but not so easily in Murcia, and the latest accounts show them as threatening to reappear on a more formidable scale in Barcelona and Saragossa, and there are ugly rumours of expected reinforcements of Garibaldi. Of course the Minister Zorilla speaks of them as “entirely crushed,” but so he did of the Carlists several months. His language, however, with regard to them is now modified. He only ventures to say

that their strength is decreasing, and that, in the course of time, they will "abandon their factious attitude;" all the sooner, no doubt, if he continues Minister, though he is too modest to make the declaration in plain words. Facts that come to light every day are strangely opposed to the idea that the Carlists have any intention of recognising the foreign King. It would be tedious to try to enumerate one half of the chiefs whose separate bands are from day to day reported as stopping trains, destroying telegraph lines, levying contributions, &c., &c. Of course, they are all "being pursued by our valiant troops," but as they are never come up with, we have no means of knowing what sort of a fight they could make of it. It is generally believed, however, that they are much better armed than the troops, the Madrid treasury not being able to pay for modern weapons, whilst the friends of the Carlists have both money and credit, and breech-loading rifles find their way through the Pyrenean passes by the thousand, in spite of all the vigilance of the frontier guards. If such is indeed the case, as all seem agreed, it is no particular wonder if the troops regard "discretion" as the better part of valour, and so are usually a day's march behind the "fugitives."

The American President, in his Message, I see does not regard the prospects of the Spaniards in Cuba as particularly brilliant, but his cold comfort is as nothing to the latest news (*canard*, possibly) from Havana. This is, that "the remnant of the insurrection" has been driven into a corner, and an enormous stockade, 15 feet high and 60 miles long, is being constructed right across the island to cut off all communication between the loyal and the disaffected district. This new Chinese wall is to have a blockhouse at every 1,000 yards, and an intrenched camp at every third mile, connected by railway and telegraph, and 5,000 troops are to guard it. The whole affair reminds one of the men of Gotham, who hedged in the cuckoo, as the sea coast will remain open to the insurgents, the Spanish fleet being hardly sufficient to establish an effective blockade if it tried its best, and notoriously not daring to attempt it, for fear of some new "difficulty" with the United States. The Admiral on the station must be having a pleasant time of it.

At the same time that the Minister announced—rather prematurely, we imagine—the suppression of the Republican risings, he also stated that it was intended to introduce various "reforms" in Porto Rico. Slavery is to be abolished, municipal institutions granted, and the whole Liberal programme tried. It has not, he was forced to allow, been quite a success in the mother-country as yet, but it may do so in Porto Rico, and should that be the case, it may then be worth consideration whether its benefits shall be extended to Cuba. But this is all on the condition that the Cubans frankly acknowledge the error of their ways, and plead for pardon in sack-cloth and ashes. Our experience of insurgents in modern times hardly leads us to expect this, and so the excellent project of the

Spanish Radical Ministry will probably go to the proverbial home of good intentions.

The Italian Parliament has been in Session, one of the proposed measures being the Religious Corporations Bill, which, though confiscating the property of such bodies, oddly enough allows each Order to have an establishment in Rome. The Committee on the bill, however, propose to deny the privilege to the Jesuits—in obedience to a hint from Berlin, say the clerical papers. The matter is not impossible, as the present Ministry seem determined to imitate Germany to the best of their very limited powers. Like Germany, they appear to fear invasion, and in despite of the deplorable state of the finances, they have announced their intention of increasing the number of military districts from fifty-three to sixty-two, adding 20,000 men to the army, establishing a new force of "Alpine Militia," which is "to garrison the frontier fortresses in time of peace, and to form the first line of defence in case of invasion." So King Emmanuel does not appear to share the amiable delusion of your Chelsea philosopher, who regards the military supremacy of Germany as the best guarantee for the peace of the world; and possibly that may be his excuse for neglecting the suppression of brigandage in the South; he manifestly fears invasion, but as we have not heard that he has quarrelled with his tutelary genius, Prince Bismarck, we are at a loss to guess who is about to take the field against him. Can it be General Kanzler, and that terrible host which lies hid in the Vatican? Like other royal and illustrious personages of late, Victor Emmanuel was reported, a few days ago, as suffering from "a slight attack of rheumatic fever"—royal illnesses always are slight—but he is said to have recovered, and to mean to testify his joy by publicly marrying one of his numerous mistresses, and proclaiming her Queen of Italy.

Like so many other countries, Italy has of late suffered most severely from floods and storms. Whole districts have been inundated, especially in the north, and a great portion of the blame for this seems to be justly chargeable to the Government. The taxation for the grand projects that fill the brains of the Ministry is so crushing, that no money can, by any possibility, be got for local objects, and the great embankments of the rivers, which the Austrians so carefully kept up, have been allowed to fall into decay, whilst millions are squandered on ironclads, which, as was seen at Lissa, are inferior to wooden vessels of a quarter their cost. For the same reason, no attempt is made to reclaim the Campagna, though the state of that district has long been urged as a proof of the miserable effect of the government of priests. One might have thought that a supremely Liberal Government would have turned the wilderness into a garden, but it has not raised a finger to remedy what it so loudly complained of. Indeed, now "the priests" are so generally blamed for everything, that it is really

surprising they are not held answerable for the late eruption of Vesuvius.

The Austro-Hungarian Ministry is said to be about entering on a scheme of electoral reform, the substitution of direct for indirect voting, by which it seems they expect to overcome the aversion shewn to the central Government by the local Assemblies of Galicia and Bohemia. Why it should have this effect is not very apparent, but in truth, the relations of the various States of the Empire to the Empire as a whole, and to one another, are a fertile subject of dispute among themselves, and quite incomprehensible to the foreigner. What may have more interest for your readers will be to be told, that there is a plan on foot to place a civilian at the head of the Army. They will remember what has been said about the "dual government" of the War Office and the Horse Guards, and will form their own opinion as to the suitability of such a system in an Empire like Austria, where it is hard to say which are the greatest, the political or the financial difficulties. It is hard to believe that she can, like you, afford to pay twice over for governing her Army, and it is considered certain that the whole influence of the Court will be used against the project. Its origin is ascribed to the Intendance, which appears to be an aggressive department, anxious to direct everything, and regarded by military men as the natural enemy of the soldier.

Whatever gloss may be put on it by "inspired" German papers, it is quite certain that clouds are gathering between the Russian Empire and its new-born rival. We all know that a rigid press-censorship really exists in Russia, and therefore when the press continually speaks in a contemptuous, disparaging tone of any country, it may fairly be presumed that that State is not a trusted friend at St. Petersburg. That it does so of Germany is quite certain, and the Berlin writers hardly know whether to be angry or pleased. They, of course, are flattered at the idea of having suddenly attained such importance as to disturb the Czar, and they say, with great appearance of reason, that he is disquieted at having lost the influence he once possessed with the minor States. They think, too, that he dislikes their projected ship canal, which is to unite the North Sea and the Baltic, and some of them have even asserted that Cronstradt is to be dismantled, as not being strong enough to resist the German fleet of the future, or capable of being made so. But, on the other hand, they cannot but be sensible that they have enemies enough already, without wantonly adding to their number, and so they rather plaintively complain of the ingratitude of the Russians, who it seems are indebted for so much civilization as they possess to benevolent Germany, and liken them to headstrong school-boys who fail in affectionate respect for their good tutor. All very sad, but such things have been heard before: even Posen is not as grateful as she ought to be for the paternal care of Germany, and it is to be feared that the youngest child

of the family, dear reclaimed Alsace-Lorraine, will turn out no better.

The Russian papers keep up their old mystification about Khiva, but it seems probable that it has a respite. An expedition certainly set out in last September, and the town was said to have fallen before it. Now it is said that the expedition was a mere reconnaissance, but that its appearance has brought the Khan to a better frame of mind, so that the existing difficulty will be amicably arranged. Of what nature the "arrangement" will be, we can have no doubt, when we recollect what has been the fate of Samarcand, and Bokhara, and Turkestan. Whatever may occur in Europe, the steady march of Russia, south and east in Central Asia, is not likely to be arrested.

A SPORTING ADVENTURE.

After travelling over three long marches with but poor results as to game, I reached a very pretty village situated on the slope of a hill with a beautifully clear stream which, in the cold season, was quietly flowing over its rocky bed with a depth of a few inches. This nullah made a very considerable bend which brought it up to the village, when it again as suddenly receded, and flowed through one of the most lovely valleys that can be conceived.

The soil of the village was remarkably rich, and every yard was under cultivation. The population was small, for, strange to say, the climate is unhealthy, and old age is seldom attained. Fever and ague is the prevailing disease, and diseased liver and spleen, the common result from which patients rarely quite recover, but linger on for a long time. At first sight a man seeking for some lively retreat would have been delighted with this valley, but a very short residence and a very little enquiry would satisfy him that appearances are deceitful. The same remarks apply to nearly all the hill countries through which I travelled. In many cases the scenery was perfect as well as the soil, but the climate totally unfitted for man to live in.

My wanderings had thus far brought me rather away from the better parts of the forest, and probably accounts for my not falling in with such good sport as I expected. But in making for a particular point, as I was doing, it was necessary to pass unfavourable country, and blank days must be expected.

Appearances were so much against the chance even of sport here that I did not think it worth while to make any enquiries. Not so my shikaree; and I was agreeably astonished to hear from him that a tiger had been committing extensive depredations

with cattle. He had taken up his abode in a densely-thick piece of cover at the head of a ravine, and a much frequented road passed within a short distance of his lair. Of late he had been so bold in his attacks that the road became impassable.

The villagers had attempted to shoot him, but ineffectually, and though he had been wounded with an arrow from a concealed bow, it did not seem to have injured him or to alter his habits. These bows are thus used:—They are made of strong bamboo, and when the tiger's habits are sufficiently discovered they are set with grass or other cover with pegs. A string connected with the trigger is pegged across the pathway, and as the tiger's foreleg or chest comes in contact with the string, the trigger is pulled, and the arrow is sent with considerable force into the breast, usually just behind the shoulder. The full success of this plan depends, of course, much on the correct setting of the bow, so that the arrow shall not take effect too high or too low. After conversing with the villagers it was quite clear it would never do to think of dislodging the tiger from his jungle in open daylight, and this was fully confirmed to me when I had reconnoitered the location, so that if I wished to bag him I must manage it after some other fashion. My shikaree soon helped me with an idea. The habits of the tiger were minutely enquired into, when it transpired that he always drank at one place. Had he gone to the nullah he must have passed close to the village and have more than a mile to travel; whereas he had only to cross the spur of the hill above his jungle to reach a small tank. This tank always dried up in the hot weather, but the unusually heavy rain of the past season had given it a larger supply, and when I was at the village there was a small quantity remaining, and to this tank bears, hogs, and sambhur resorted. The probability is that the tiger sometimes picked up a meal here. From the banks of the tank to the edge of the water was a space of say 25 to 30 yards which, though under water in the rains, was now dry.

It was no difficult matter to discover the path usually taken by the tiger to the water, and as no tree or other sufficient shelter was in reach, it was proposed that a hole should be dug a few yards on one side of the path, and near the water, into which I should get and await the approach of the tiger. This novel method of tiger-hunting struck me at once as worthy of a trial, and a hole of about 5 feet depth was dug, and wide enough to allow me to load my gun if necessary. A covering of branches was also prepared and conveniently placed, so that if the tiger should charge down I might pull it over me, and thus lie concealed. There was, of course, a bright morn, for without this the attempt would have been next to useless. The weather was getting very hot, and there was but little water remaining, and the villagers had been living on in hopes that when all the water in the tank should be dried up the tiger would disappear, as there was no

other within seven miles except in the nullah. Just after sunset, I betook myself, with two guns, to my retreat, and quietly made myself as comfortable as I could until the tiger should think proper to come. I had a little rice and kodo straw, and, when too late, found I had committed a great oversight in not providing myself with a small morah or something else to sit upon. But it was now too late, and I was forced to remain the night out as best I could. The ground was very damp, and the little straw I had soon became wet, so that, though piled up as closely as I could get it, long before morning my clothes were wet through, and I felt a little chilly in consequence, but the weather was warm, and I thought lightly of it. Whether my movements had been the cause I cannot say, but no tiger came. Hour after hour did I watch, and my eyes were kept open by the occasional appearance of a bear, panther, or hogs that came down to drink. I could more than once have shot down a specimen of each of these, but I was bent on having the tiger; but no tiger made his appearance. Towards morning I became so weary with watching, that I could keep my eyes open no longer, and thus fell fast asleep, and was so found by my people long after day dawn. I was very stiff, and felt by no means comfortable, though not ill. The greatest care was taken to examine the approaches to the water, but no track of a tiger could be found, so that probably he had not come. I was sorely afraid he had left the place, and, though feeling queer, I was resolved to try again. This time I made myself more comfortable, and provided against getting wet and so forth. And having arranged everything to my satisfaction, I ensconced myself in my ambush a second time. It is a weary time waiting as I had to do for the expected sport, but I consoled myself with the idea that it was quite an event in my sporting career, and that the result would amply repay me, for I had an internal conviction that this night I should be successful.

It was, as near as I could judge, two in the morning when I perceived some animal looming large against the sky, standing on the high ground of the tank. The distance and the uncertain light made it impossible to distinguish correctly that it was a tiger, but my hopes assisted me, and I lay very quiet. Gradually the object neared me, walking slowly and cautiously, as if with a presentiment of evil. I began to think it was coming directly down to me, but when very close it moved on to the water, and a fine tiger was plainly visible. Here then my wishes were to be realized, and I prepared for action. When I had my gun in hand just ready to be raised to my shoulder, the tiger suddenly crouched to the ground, and nearly at the same instant some sambhur, that had come to the high ground of the tank, I suppose sighted the tiger, and started off. After a while the tiger got on to his legs, standing on one side of me, and I should think not more than ten yards from the muzzle of my gun. The position was too good to

lose, and I gave him a ball as well aimed as possible, short of hitting the heart, but my experience tells me it is as difficult to hit a tiger's heart as his brain. The effect of my shot was splendid; the beast dropped as if dead, but with a roar that in the stillness of that hour, was heard far and wide. He lay there seemingly quite disabled, gnawing impotently at his foreleg, and grumbling and growling most viciously.

A slight rustling which I made attracted attention, and he was on his legs with an alacrity quite inconsistent with his apparent helplessness, and, as I knew, from experience, what mercy was to be expected from a wounded tiger, I was as wide awake as he was. He now stood facing me, and the object seemed to offer a good aim; steadying myself, therefore, I gave him a second ball directly in his chest, which made him reel and stagger, but before I could change guns he was down upon me. With desperate energy I clutched at the covering of branches, and pulled it just enough over the hole to screen my immediate person, but not to cover the hole. It was, perhaps, well for me that so it happened, for had I covered it entirely the tiger would probably have rushed upon it, and as it was not strong enough to bear even my weight, he must inevitably have fallen down, when my position would have been anything but enviable.

As it was, he seemed quite well aware that from this spot originated all his sufferings, but he could not see his enemy, and was at a loss what next to do. You may be sure I did not move a finger, but I was by no means easy in my mind, and I had no idea which of us would get tired of his position first. We remained in this state, I should think, nearly half-an-hour, the tiger grumbling and worrying his forearm in rage, and in his writhings and twistings coming at times awfully too near the edge of the whole. My position was too cramped to enable me to act in any way effectually, so that I was compelled to lie perdu, and cautiously watch, so as to take advantage of any favourable turn.

By degrees the tiger increased his distance from me to about five yards, and after a very cautious peep I was sorely tempted to give him another ball, but felt that I could not get into proper position to do this without being observed, and my very existence hinged on his not seeing me. Moreover, I knew that morning must be at hand, and that I wounded the tiger mortally, so that if I could only hold out all must go rightly.

I cannot say how long we remained thus, but on again taking a cautious peep what was my delight to find daylight coming on and the tiger making off, but at a most slow and ricketty pace. I plainly saw he was all my own and my first impulse was to sally forth and despatch him. But caution whispered rather loudly that no tiger can be trusted while a spark of life remains, and as it was not at all clear daylight I remained quiet though I no

longer took pains to conceal myself. Stiff and uneasy from my cramped and damp position it was a luxury to get out and stretch my legs, and to keep an eye on the tiger; I found it was necessary to be after him as he had hobbled to the high ground of the tank and once beyond that I might lose sight of him. Leaving the empty gun in the hole and giving the tiger a sufficiently wide berth I walked to the high ground also. It seems when the tiger got to the back of the tank either he thought he saw some one was coming up to him in front or doubting his power to reach his lair, he made for a thickish bush on his right, so that when I got to the top of the bank, I came almost upon him and face to face. In an instant he was upon me, but making as sudden a spring on one side and just escaping his paw, I collected my thoughts and getting my gun cocked I gave him a ball in the neck, which passed obliquely into the shoulder and he fell dead.

Without taxing myself with fear, I must say I felt more at ease when this tiger was killed than with any other I ever shot. Perhaps sitting all night and quite alone in a hole in the ground does not tend to raise the spirits.

EDITOR'S PORTFOLIO;

OR,

NAVAL AND MILITARY REGISTER.

It is not very often that we have to express our thanks to the present Ministry, and therefore we feel bound to embrace the opportunity of doing so, which is furnished by the dispatch of H.M.S. 'Challenger' on a scientific expedition. Everything that could reasonably be expected seems to have been done in the way of equipment, and the selection of the captain and officers, as well as of the scientific staff, is one to which no competent judge can take exception. We confess that we should have been quite as well pleased if we had not seen the name of one eminent member advertised as the intended "special correspondent" of a popular periodical; but that is a matter of taste, on which, probably,

we are behind the age, though as we believe, in accordance with the Queen's Regulations. However, all that the "reading public" will learn in that way will do neither good nor harm, and is not worth quarrelling about. Private speculation has not started the expedition, neither will it interfere with its efficiency, and we look confidently for most satisfactory results.

But in thanking Her Majesty's Ministers for what they have already done, we own to be actuated by that gratitude which has been defined as "a lively sense of favours yet to come." In a word, we want them to grant the prayer of the Memorial so recently offered to them in favour of a new North Polar Expedition. There is, to our apprehension, something of national discredit in the fact, that for the last dozen years or more we have abandoned our former chosen field of research to other people. The fate of the Franklin expedition all must deplore, but greater calamities in the aggregate than that have failed to turn us aside from the path of African discovery, or the far more questionable mountain-climbing feats of the Alpine Club. Beside, as Sir Henry Rawlinson urged on the Premier, the matter really does not involve such risk of life as in former days. The very search for Franklin, which employed upwards of 1,500 men, and extended over a period of fully ten years, was attended by only one casualty, the loss of the gallant young Bellot. It would, we think, be difficult to produce so favourable a result for navigators in any other part of the globe, and we therefore dismiss any objection on the score of danger as untenable. If the economic objection can be surmounted, as we earnestly trust that it may, we shall soon see the departure of a well-equipped expedition, which may be reasonably hoped to complete the researches began so long ago by English mariners, and whose continuance, under alternations of success and failure, has had so marked an influence for good on their descendants. We believe that it now wants but little to reap the fruits of the dangers and trials of Frobisher, Hudson and Baffin, of Ross, Parry and Franklin; and it would be only a just tribute to their memory to set about the work in as hearty and hopeful a spirit as theirs. Let us then be up and doing, God being our helper.

We had occasion last month to take notice of some disparaging remarks on a paper entitled "German Tactics at Wörth and

Gravelotte," in our September issue, which it had pleased the *Militär Wochenblatt* to indulge in. Our contributor had said that these victories might have been won with far less loss, and, holding that opinion, he very naturally considered that the German troops had been "culpably ill-handled," and that the commonest principles of tactics had been violated thereby. We conceive our *confrère* of the *Wochenblatt* to be sufficiently logical to allow that it is only necessary to establish the premiss for the conclusion to follow as a matter of course.

Now, to establish the premiss, we beg to call his attention to a very recently published work,* which is not the production of "hostile English officers" who "possess no practical knowledge whatever," to employ his courteous description, but of one of his own countrymen, assisted by an Irish officer who has long served in the Austrian Army. If he will turn to Colonel Borbstädt's account of the battles of Wörth (pp. 267-284), and of Gravelotte (p.p. 433-480), he will find the German losses more amply set forth than by our contributor. He will find mention of the "decimated Prussian and Hessian battalions" at Gravelotte; and he will read (at p. 264), that though "the general proportion of officers to men is as 1 to 50, the loss of officers to that of men at Weissenburg was in the proportion of 1 to 8;" and at Wörth (p. 281), the proportion was 1 to 13. In another place (p. 466), we hear of "nearly one-half of the rank and file being put *hors de combat*." We can and do fully acknowledge the bravery and self-devotion of the men and the subaltern officers who led them, but, until enlightened by our censor, we shall continue to think that really great Commanders, especially with overwhelming numbers at hand, might have avoided such terrible loss, and yet have achieved their object.

Paris, which rightly or wrongly means France, the Versailles Assembly notwithstanding, has adjourned its "crisis" in order to make merry with the New Year. M. Gambetta has gone to Nice "without any political object," and the Members of the Assembly are scattered all over the country, east, west, north, and south. Even the "Committee of Thirty" has given itself a holiday, which commenced a day or two earlier than was at first proposed,

* "The Franco-German War, to the Catastrophe of Sedan and the Fall of Strasburg." By Colonel A. Borbstädt and Major F. Dwyer.

in consequence of M. Dufaure, who was to be examined before it, judiciously falling ill, and thus postponing the evil day when he shall have to attempt to reconcile his speech with the President's Message. The agitation lately got up for the dissolution of the Assembly would appear to be the work of a comparatively small section, but we all know that it is the noisy minority that far more commonly carries the day than the sluggish majority. Had it not been for this, Paris would never have suffered as it did from the rule of the Commune. In mere numbers the Communists were absolutely insignificant when compared with the "friends of order," but as the first acted, whilst the second merely pondered on "the situation," of course Disorder triumphed. So it will probably be in this case. When the Assembly meets again, a few days hence, the agitation will be renewed, and we may expect it to be all the more violent, the more probability there may seem of a "working agreement" being come to between the "Monarchists," as they may be termed, and the President. Many speakers and journalists of the Right and Right Centre affirm that if an election were to take place, they would command even a more decided majority in the new Assembly than they have in the present one; but they seem to be very little inclined to put this to the test, so earnestly do they argue against a dissolution. In truth, all history shows that these representative bodies have an invincible dislike to abdicate their functions. Whatever their proceedings may be, and however they may be looked on by their constituents, there is always a majority that will cling to power and place—some from one motive, some from another—until a Cromwell or a Bonaparte cuts short all their deliberations with the declaration, "I tell you you are no longer a Parliament," when his janizaries clear the House, and he stalks off, the absolute master for the time being. Unless appearances are more than usually deceptive, such will be the end of the Assembly, professedly elected on the basis of "what would least divide France." "The Republic of M. Thiers" can hardly be said to deserve that appellation, and it and the Assembly are alike considered, even by their well-wishers, in a very tottering condition. The fact of their having existed so long, far from giving them *prestige*, is against them with many minds. All are tired of the "provisional," and with that feeling uppermost, the chances are that any change,

however violent or ill-timed, will be preferred to the maintenance of a Republic without Republicans.

It can hardly be supposed that Prince Bismarck really wishes to retire from public life, but there are, what many well-informed Germans consider, indications that circumstances may, ere long, prove too strong for him, and bring about that event whether he wills it or not. Setting aside the much-debated question as to his health—for the fact that he is every now and then declared ill at a time when his temporary retirement is convenient, and seems fit for anything when his presence is essential, is interpreted in various ways—they regard him as playing a bold game in his resignation of the Prussian Premiership—a game that may make him greater than ever, but is quite as likely to have the contrary effect. His new-born Liberalism, they affirm, has seriously alarmed the King, as well as the majority of the Prussian Cabinet, and they look on the granting of his request to be relieved of the Premiership as the first step to his retirement altogether. It certainly, to our apprehension, looks something like it when we read that the new Prussian Premier is likely to be General von Roon, who, after being for a while the devoted follower of the Prince, considered his proposed “swamping” of the House of Peers with fifty, or a hundred, or even a greater number of new members, as too revolutionary, and accordingly resigned. It is stated to be mainly owing to Von Roon’s influence that the compromise was effected, which limited the number of new members to the exact number required to pass the Counties Administration Bill; the new members and the majority were each 25, so that no converts to the Prince’s sham Liberalism had been made, either by the modifications introduced in the Bill when brought forward a second time, or by his threats of resignation, which at first were understood to imply that he would wash his hands of the whole affair, and leave the Empire with its new provinces, and its yet unlevied French milliards, to see how it could get on without him. But this picture did not appal even a single one of the old Junker party, and the Prince had to learn that “the deluge” was not feared should he retire to Varzin. The German world would somehow go on without him, as the French would without M. Thiers, or the Spanish without Senor Zorilla. The world in general did not fall quite into chaos when Prince Metternich and

King Louis Philippe "retired from business," though each was regarded by many people besides themselves as quite indispensable. So it will be found, when that "well-graced actor quits the stage," who is by some supposed to be adding to his dignity and authority by dropping the troublesome detail of the Prussian Kingdom, and giving himself exclusively to Imperial Germany. A competent successor, no doubt, will appear when wanted, and the less he resembles Prince Bismarck the more welcome will he be to the world in general.

Crises are contagious apparently, for the last month has seen them in such widely different States as France, Prussia, Austria, Turkey, Denmark, and Spain. The first, as we have said elsewhere, stands over for the holidays; the second is said to be decided in favour of Prince Bismarck, though the fact is to be "received under reserve;" the third and fourth have little interest for England, at present at least, as they only concern the forced retirement of Count Lonyay in the one instance, and an attempt to interfere with the succession to the throne in the other. With our existing excellent habit of minding our own "business," and nothing else, we trust we shall not have to take arms in the struggle which is believed to impend between "Legitimacy" and "Parliamentary succession" in the Ottoman Empire. Neither need we concern ourselves about the Danish crisis; it only means that the poor little kingdom finds it advisable to abandon a plan for military reorganization for fear of offending mighty Germany, and to offer up its projector, the War Minister, as a propitiation. But the Spanish crisis is the result of a project dear indeed to the "British philanthropist," that class to which every member of the United Services feels so deep a debt of gratitude. It is no less than the proposal of Senor Zorilla to abolish slavery in Porto Rico, and to give Liberal Government in all its fulness to that fortunate island. The latter appears to be the freewill offering of the Radical Premier, but the former was promised by Prim and other heads of the Revolution of September, 1868. It has, however, been allowed to remain a dead letter by the various Ministries that preceded the present one, on the not unreasonable ground that it would aggravate the difficulty in dealing with the Cuban insurrection, the chief supporters of the Spanish rule being decidedly averse to the measure. But, with the grand contempt for

all practical considerations, that actuates the "advanced Liberal" all over the world, Ruiz Zorilla has revived the project, although one would think the present time peculiarly inappropriate for adding a new difficulty to the many that press on the existing Government. From the British point of view, of course, it is atrociously wrong that the cause of his "black brothers" should be deferred to any other consideration whatever; but less enthusiastic people might see, in a half equipped Army, a Navy not able to control American sympathisers, a King whose life is threatened not only by open violence, but secret poisoning, armed adherents of at least two rival Monarchies, and also of a Republic, a bankrupt treasury, and an utterly hostile priesthood, to say nothing of a population which if not hostile, is clearly apathetic; any one might see in these things a caution not to make experiments which will assuredly alienate nine-tenths of the supporters of King Amadeo, and as surely will not conciliate one single opponent. For once the whole Spanish press appears unanimous, all denouncing the project, some on its own demerits as they consider them, others on its inopportuneness; and there seems little doubt but that Zorilla must give way to the storm. Two or three of his colleagues have already resigned, rather than identify themselves with his project, and General Cordoba only remains at the Ministry of War until the difficulties with the refractory conscripts have been settled. These it appears have been very serious, and the General seems to consider it a point of honour not to leave them as an embarrassment for his successor—a matter in which out-going Ministers are not always as scrupulous as they ought to be, in countries much nearer home than Spain.

CRITICAL NOTICES.

THE FRANCO-GERMAN WAR, TO THE CATASTROPHE OF SEDAN AND THE FALL OF STRASSBURG. By Colonel A. Borbstädt and Major F. Dwyer. (Asher and Co.)

This portly volume, abounding in maps, plans, and tableaux, is professedly "prepared for the British public," and there is much in it that the said public may study with advantage. The authors, one of whom we are happy to acknowledge as an old friend and correspondent, very truly say that the English people and their rulers have hitherto been far too neglectful of the study of the organization of other armies, and that a like indifference also prevailed in France. We have seen, they continue, the fatal results of such neglect among our neighbours, and

we ourselves have from the same cause been subjected to a panic, which discredits us in the eyes of other nations. We have given up ourselves far too exclusively to our riches and our commerce, but the fate of France should teach us how unsafe this is. There, the attempt to convert the whole state into a purely military organization has failed most miserably; and Germany (Prussia being taken as the model) has succeeded, not as superficial observers imagine, because she is the very incarnation of militarism, but because, under the pressure of great difficulties, Scharnhorst and his successors have invented and gradually perfected a military system which is in greater harmony with the whole organization of the country than is the case elsewhere, the Army being carefully adapted to the country, its social, financial, and political conditions, and the fatal error (so conspicuous in Russia for instance) of trying to adapt the country to the Army, in neglect of these, being most carefully avoided. "The British military system cannot possibly remain in its present condition: a great and radical change must be effected; and for this the nation seems wholly unprepared and unripe, chiefly, no doubt, from want of acquaintance with national armies and modern warfare. It is evident that much valuable information on this subject may be gained from a careful study, first, of the organization of two great armies, such as the French and German; and, secondly, of what each of them actually did in the field; and this, in a few words, is what is set forth in the following pages."

We have elsewhere commented on some portions of this work, and we, of course, have no room in this notice to follow the course of the war in detail. We will merely state that the book is divided into forty-two chapters, of which the first eleven are devoted to preliminary matters. The chain of events that led to the war, and how the war broke out, are very well written summaries, and they are succeeded by eight chapters which give all needful information as to the strength, tactical formation, and mobilization of the contending armies, including the railway transport on both sides; the details are deserving of attentive study by the soldier, and they have the merit of being so stated as to be easily followed by the civilian. The remaining chapters tell, in sufficient detail for non-military readers, the events of the campaign down to the capitulation of Strassburg, and military men may find their study of other works assisted by the maps and plans (11 in number) which our authors have provided. They are very clearly printed in colours, and almost tell the history of the campaign at a glance. The work altogether is a very satisfactory one, and we trust that it may soon reach a new edition, when the only omission that we detect, namely, a good index, we trust will be supplied.

THE BRITISH ARMY, AND WHAT WE THINK ON THE SUBJECT. A Voice from the Ranks. (W. Mitchell and Co.)

We have lately had our attention called to a pamphlet with the above title, and we have reason to believe that it is the production of a staff sergeant, and so a *bona-fide* "voice from the ranks," not the unreal utterance of a writer in a better class. Though published two years ago, we find in it many suggestive passages, particularly as regards the practical training of both officers and men, and the writer, anonymous though he may remain, seems fairly entitled to be regarded as one of the first to bring that subject prominently forward. He is evidently an educated man, and a man of observation also. Part of his pamphlet, he tells us in his Preface, was originally written for a Magazine, and some of his statements as to the utter want of "comradeship" between the officers and men of our Army are rather too highly flavoured for any but civilian readers; but these slight blemishes, hardly avoidable perhaps under the circumstances, will not hinder us from expressing the opinion,

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that our sergeant has a very creditable knowledge of his subject, and that among his "Hints to Army Reformers" are several that are well worth consideration.

THE RELATIVE POWER OF NATIONS. By T. St. L. Alcock, late Major 95th Regiment, Hon. Colonel 1st Royal East Middlesex Militia. Second Edition. (Williams and Norgate.)

Colonel Alcock does not fear being stigmatized as an "alarmist," for he very rightly distinguishes between "alarm" and "panic." "Panic" is the state into which our economical, peace-at-any-price, malignant philanthropists would be thrown, at the actual approach of an invader; "alarm" is only the "call to arms" (*All' armi, aux armes*) to meet and repel him. He refuses to allow that we are, or can be safe from invasion under our present conditions, and he advocates a Confederation of the Empire, which would render us sufficiently strong to make the strivings for military supremacy on the Continent matters of indifference to us. We should, he conceives, by training all our people, beginning with boys at school, soon render ourselves so strong in every part of the world, that no nation, no coalition of nations, would venture to attack us; we could then dare to be generous to our friends, and not shuffle out of treaty engagements (as with Denmark), and we could, and should, extend rather than contract our Empire. In an Appendix, the author prints a sensible letter from Dr. Wyld, who recommends drill as a part of school teaching, the use of the rifle for our growing lads, and a year as a drilled soldier for the young man of every class of society. He also recommends that the training of officers should be such as to add business habits to mere military detail; and concludes with an opinion with which we heartily agree though we may shock some people by so doing: "Competitive examinations are so far good, but their object should be the development of the *entire man*. Latin and Greek are well, but a good voice, prompt decision, a sound chest, powers of endurance, and a pair of good legs (for the rapidity of concentration must depend upon the marching power of the troops) are more essential." The pamphlet is altogether well worth reading; we like its tone, and it has evidently been appreciated, as the copy before us is the second edition—not often the condition of military brochures.

SONGS FOR SAILORS. By W. O. Bennett. (Henry S. King and Co.)

Since the days of Dibdin our poets have not shone in the art of naval song writing, but we are glad to see in Mr. Bennett's little volume, not only the promise, but the performance of better things. He has set a high aim before him, and he has laboured hard, and we fear not to say successfully, to attain it. His aim is to see the future of our Navy as glorious as the past, and he wishes to make Drake and Blake and Benbow, Hawke and Rodney and Duncan, something more than mere names to the tars of the future. Of course he sings of Nelson and Trafalgar, but his chief purpose, as we take it, is to give them an idea of what the earlier sailors did, how they fought, and how they triumphed. Whether he is a salt himself we know not, but he shows that he fully understands their habits and tastes, when in his Preface he remarks, in reply to a probable objection from landsmen, as to the length of some of his songs rendering them unsuitable for singing, that "in the intervals of leisure which a sailor has, he will as readily listen to a ballad as song. A fore-castle audience requires what the hearers of our old ballads demanded—plenty of stirring incidents and story, true feeling simply expressed. These I have sought to give. My success or failure will be determined by the adoption of my songs by our blue-jackets themselves. To them I send forth my volume, not without a strong hope that I have not written for them in vain." We trust not. Everybody now-a-days,

is, or might if he chose become "wise," so great is the educational pressure and all that sort of thing brought to bear on gentle and simple alike, that we run a great danger of quite forgetting to be "merry and manly" as our unenlightened forefathers were. Mr. Bennett's "Sea Ballads," as we should prefer to call them, are a step in the right direction, and we trust that they will become as popular as any of the jolly rattling old ditties, of which they so pleasantly remind us. We have no room for a complete ballad, nor, if we had, should we think it fair to "requisition" it without leave or license, but we must give two stanzas out of a dozen, from "Hawke in Quiberon Bay," which no doubt will remind many of our veteran readers of the fine old song, "The Saucy Arethusa"—

"Of a hero, lads, you'd have me talk;
Well then your fancy I'll not balk,
And my tale shall be of Admiral Hawke,
And the day he gave to story.

For while we've sailors such as he,
We never, my lads, need fearful be
That we shall no longer rule the sea,
And boast our ocean glory.

"When dawn come darkly, upon the shore
Lay the 'Soleil Royal,' to sail no more;
All the rest were nowhere; so off we wore,
With our prizes, wounds, and glory.

And now, when of Nelson and such they talk,
If you have the wish, your whim don't balk,
But up and tell them of glorious Hawke,
And sing, as I've sung, his story."

That's the kind of lyric to touch the sailor's heart. The Admiralty already provides him with "good books," and we hope My Lords will see what a popular act it would be to add "Songs for Sailors" to the number.

OUR RESERVES OF SEAMEN. By Thomas Brassey, M.P. (Longmans, Green, and Co.)

Mr. Brassey advocates the appointment of a new Royal Commission to investigate the subject of our Naval Reserves. He maintains that the regulations formed twelve years ago are no longer applicable, and that their strictness may, in many points, be advantageously moderated, as to limits of age, &c.; and he would give power to the officers of the Reserve to dispense with a small part of the annual drill (to be made good at a future day), in cases where insisting on the whole 28 days in one period would be of pecuniary disadvantage to a good seaman. These, and several other of his proposals, we can fully endorse (we may instance his Naval Volunteer scheme lately broached as worth a trial), but we own that we are not of his opinion, that it would be advisable, either pecuniarily or politically, to reduce the Royal Navy to, say, half its present strength (he puts the Naval Estimates at seven millions and a half), in order to have a few millions to bestow on nursing Reserves of various kinds. We, on the contrary, throw in our lot with the "officers who think that an equal sum, spent on the Navy proper, would secure a more tangible result." Mr. Brassey's statistics, as to the merchant navy, employment of foreign seamen, apprentices, &c., we are bound to receive as unchallengeable, as they are drawn from Parliamentary papers, though we have seen some of the facts otherwise stated. We are also quite ready to admit the importance of the commercial marine,

but we own to some surprise at being informed that "those renowned seamen, Drake, Hawkins, and Forbishter, who commanded the fleet under Lord Howard, were Masters in the Merchant Navy!" Antiquarian discussion does not belong to our pages, or we would ask for the proof of this assertion; as it is, we content ourselves with saying that we never heard of it before.

NAVAL AND MILITARY INTELLIGENCE.

THE LATE ADMIRAL SIR JAMES ROSS—A memorial portrait of the late Rear-Admiral Sir James C. Ross, D.C.L., F.R.S., has recently been placed in the painted hall of the Royal Hospital, Greenwich, by subscription from several Naval officers and men of science, as a record of his great achievements in geographical discovery and the advancement of science in both Polar regions. Sir James C. Ross served in every Arctic expedition under Sir Edward Parry and his uncle, Sir John Ross. He passed nine winters and sixteen summers in the Arctic regions. He planted the British flag over the position of the North Magnetic Pole, and attained the highest latitude in both hemispheres ever reached—in the North when he served with Parry, and in the South when he commanded the Antarctic expedition. By permission of the Lords Commissioners of the Admiralty this portrait is now placed as a worthy pendant to that of Captain Cook.

CHATHAM DOCKYARD EXTENSION.—The extensive works yet to be carried out at the Chatham dockyard extension have during the past few months made good progress. The two unfinished docks, which are being constructed under the contract with Mr. A. Gaberelli, are now in a forward state, so that it is hoped they will be completed early in next year, though some delays have arisen from time to time from the nature of the soil. The excavation, piling walling, &c., for the third and last basin—the great fitting-out one, the lowest down the river—is going on well, the work being mainly executed by many hundreds of convicts from St. Mary's Prison, a number of freemen being also employed, and the whole undertaking being in the hands of the Admiralty authorities; but a long time must elapse before this basin can be finished, as much of the site has to be gained from the river by embankments and walls. A large part of the dockyard extension was some time since enclosed with a strong and high wall, and this is now being continued so as to join the wall of the old dockyard, when the new works will be completely enclosed.

COMPRESSED GUN COTTON.—A discovery of some importance has recently been made in regard to the properties of compressed gun cotton. The principal difficulty which has been encountered in its manufacture, and which has to a great extent checked the progress of its advancement as an explosive compound in Her Majesty's Service, has been the extreme danger attendant on the process of drying it after leaving the hydraulic press. The lowness of the temperature at which gun cotton will explode renders it a most perilous substance to expose to heat. But the difficulty adverted to has been entirely dissipated by the result of a series of experiments which has just been concluded at the Royal Arsenal, Woolwich. Mr. E. O. Brown, F.C.S., War Department chemist, has succeeded in detonating a succession of discs of gun cotton, taken straight from the hydraulic press, and containing from fifteen to twenty per cent. of water, without submitting them to the process of drying. The discovery was almost a matter of accident, it having never been anticipated that detonation could possibly occur under such circumstances; but the im-

portance of the fact can hardly be over-estimated, for while the cotton in its damp condition is perfectly innocuous and incapable of ignition, the same cotton possesses all the explosive and other attributes of perfectly dry cotton for mining and like purposes. In the course of his experiments, Mr. Brown placed some discs of wet compressed cotton upon a slab of iron one inch thick without any tamping or covering. On placing the electric detonator within them and firing the mass, the plate of iron was deeply indented in the centre. A slight tamping of sand, however, placed over the discs so far increased the explosive agency that a slab of iron was shattered to fragments on detonating the cotton.

FURLOUGH ALLOWANCES OF MEDICAL OFFICERS FROM INDIA.—A letter from the Right Hon. the Secretary of State for India has been officially promulgated on the subject of the rate or pay admissible to British medical staff officers holding administrative appointments in India, the tenure of which is limited to five years. It has been determined that "these officers when absent from India shall be placed on a similar footing as regards furlough allowances as officers commanding divisions and brigades, and shall be allowed to receive during the period of their absence on medical certificate, which is to be restricted to six months, their Indian allowances and half staff salary. During absence on private affairs, which is to be limited to four months, no pay will be issued. In no case will more than one grant of leave out of India be allowed. On arrival in England they will be examined by a medical board, and if reported unfit for further service in India they will be removed from the Indian establishment." It has been further ruled that British medical staff officers appointed to India, subsequent to the rules of 1868, have not the option of electing the Furlough Rules of 1854.

BOYS FOR THE ROYAL NAVY.—Mr. Wade, Staff-Surgeon of Her Majesty's ship "Impregnable," states in his report for 1871 that in that year 2897 boys were entered for training for the Royal Navy. It is found that the boys themselves are the best recruiting parties. During the holidays they are dispersed over the country; they are well clothed, and give a good account of their life in a training-ship, and a large number of applications for entry follows. Errand boys, tradesmen's boys, and masons' labourers supply a large proportion. At the end of the year 1871 the number under training was 3558. Of the 3113 English boys 1246 came from country towns and villages; 720 from London; 466 from Plymouth and Portsmouth. There are 484 more country-born lads serving than at the end of the preceding year; the country lads are found to be superior to town lads. The number of Irish lads—293—was more than double that of the previous year; the number of Scotch boys decreased to 107, chiefly from Glasgow and Edinburgh. The average time under training is but thirteen months; yet the physical development is satisfactory, and the boys are sent from the training-ships in a greatly improved condition, and from awkward slouching lads have become apt and smart, fit to make the seamen who are the finest body of men under the Crown. Of the 1988 boys who have passed through the "Impregnable" in 1871 all had some knowledge of religion, and most had been in the habit of attending a place of worship; the great majority had received instruction at national schools. There were 2149 boys examined on board the "Impregnable," most of whom had been previously examined at recruiting or coastguard stations; and 59 were rejected from being unable to pass the educational test. It is not stringent, but it excludes many well-developed lads; it may be hoped that the care and attention now given to education will soon remove this deficiency. The number that came under medical examination was 2090, and 447 were rejected; 128 on account of the circumference of the chest being below the standard, 70 for being phthisical, 43 for weak development, 41 for imperfect sight, 38 from decayed teeth, 26 from varicocoele, 17 for scrofula. Recently entered boys frequently suffer from the sudden change of diet, especially boys

from Ireland. These have been accustomed to diet almost wholly farinaceous they have good appetites, and when satisfied with meat and pudding they find it more than they can digest. The deaths in the year were about one-half per cent. on the number borne. A boy died from accidentally swallowing some tobacco he was chewing. Seventy-one boys were invalided, 19 of them from disease of the heart. In the year 1871-2, 39 second-class boys were sent from training-ships to service to supply the place of blue-jackets.

THE NEW NASMYTH STEAM HAMMER.—It is anticipated that the enormous steam hammer about to be erected in the newly-built portion of the Royal Gun Factories Department at Royal Arsenal, Woolwich, by Messrs. Nasmyth will be in its place by the end of February, or the beginning of the following month. The foundations are nearly prepared, several of the massive plates which are to support the anvil having been fixed in their places, and the manufacture of the hammer itself is understood to be making satisfactory progress.

TORPEDO EXPERIMENTS.—A series of interesting experiments has just been made in connection with the War Office, in the spacious bay adjacent to Weston-super-Mare, on the Somersershire coast, with a view of testing the comparative strength of gunpowder, gun-cotton, picric powder, and nitratet gun-cotton. The machines were charged with 1 cwt. of either explosive, and laid respectively in 10ft., 15ft., and 20ft., of water, the same being connected with the shore by means of wire cables which were subsequently attached to a galvanic battery and fired. Each explosive threw up dense volumes of water to a considerable height, but we understand that the gun-cotton proved itself to possess by far the greatest explosive power, the column of water raised by the same being upwards of 100ft. in height, and the crater formed in the mud by the explosion a considerable depth. The experiments were concluded on Thursday morning, having been carried out under the direction of Col. Sleeley, R.E., Capt. Younghusband, R.A., Major Majendie, R.A., Capt. Clayton, R.E., Capt. Field, R.N., Capt. Fisher, R.N., Lieut. Hall, R.N., Lieut. Watson, R.E., Lieut. Ord, R.E., and Professor Abel, chemist to the War Department.

NORTH POLAR DISCOVERY.—The following is the text of the Memorial presented to the Premier by Sir Henry Rawlinson, in the name of the Royal Geographical and other Societies. "On behalf of the Royal Geographical Society, I have the honour respectfully to request that you will bring to the notice of her Majesty's Government the reasons which make it desirable to despatch next year a naval expedition with the object of exploring the unknown region around the North Pole. I herewith submit the opinion of a committee of Arctic officers appointed this year by our council to consider the subject of an Arctic expedition as well as the views expressed by the Royal Society, the Geological Society, the Linnæan Society, the Scottish Meteorological Society, the Meteorological Department, and the Antropological Institute; including the valuable remarks of Dr. J. D. Hooker, C.B., F.R.S., and of Dr. Carpenter, F.R.S., the President of the British Association. The collective evidence of these seamen and men of science will, I trust, leave no doubt with regard to the value and importance of the results which a well-appointed expedition must yield in exploring nearly two million square miles of unknown ground within the 80th parallel of north latitude. Such an expedition ought to lead to the solution of the numerous important scientific questions in physical geography, geology, natural history, terrestrial magnetism, anthropology, and meteorology, which are referred to in the letters received from the above-named scientific societies. This society after a careful consideration of the subject, is convinced that its geographical results would be of great value. In 1865 our late president, Sir Roderick Murchison, took steps

to bring the subject of Arctic exploration before her Majesty's Government; but his application was laid on one side, and a decision was postponed until the question of the most advisable route could be decided by the expeditions then about to be despatched by the Swedish and German Governments by way of Spitzbergen. Seven years of unsuccessful labour in that direction have led to the collection of further proofs, by the leaders of both the Swedish and German expeditions, that the experience of all previous navigators was not at fault as to the impracticability of penetrating the ice in that direction. Arctic authorities are now, therefore, unanimous in the opinion that the route by Baffin's Bay and Smith Sound promises the largest amount of valuable scientific results combined with the best assurance of safety. The American expedition, commanded by Capt. Hall, has gone in an entirely different direction up Jones Sound, and must return in 1873. It consists only of one small vessel, and the results which can be obtained by it must necessarily be limited. Apart from the purely scientific point of view, the various explorations of the Arctic regions by British navigators have, since 1818, redounded to the national honour and repute, and in no small degree contributed to keep alive, through a long period of peace, that spirit of courage, enterprise, and self-denial which is so essential to the character of a great maritime nation. Neither I nor those who are acting with me would submit this proposal if its adoption involved any undue risk of life, such as existed in former days. The experience acquired between 1850 and 1872, during which period expeditions commanded by British, American, Swedish, and German officers have safely, and at many points gone to and fro within the Arctic circle, has proved that, with the help of steam and other modern appliances, and of the knowledge gained concerning the proper organisation of travelling parties, Arctic exploration, under judicious leadership, is not unduly dangerous. Universal interest continues to be felt in the examination of the North Polar Region. Every first-class Power of Europe and America, except England, has sent forth expeditions for Arctic discovery during the last 12 years. These attempts have been watched with the deepest interest, and not without some feeling of shame, by the press and the people of Great Britain; and there is now a very general feeling in this country that the time has come for us again to assert our old pre-eminence in the field of Arctic discovery."

OBITUARY.

Col. John Scott Phillpotts, late of the Indian Army, died on Nov. 15, at Bradley, St. Mary Church, Devon, aged 52.

Lient. Col. Thomas Henry Sissmore, late of the Royal Artillery, Bengal, died on Nov. 19, at St. Leonard's-on-Sea, aged 61.

Captain Musgrave Dyne Brisco, late of the 7th Hussars, died on Nov. 14, at 15 Mansfield Street.

Captain Sir Henry Hickman Bacon, Bart., formerly of the 3rd Dragoon Guards, E.L. and J.P. for Lincolnshire, died on Nov. 14, aged 52.

Second Lieut. George Alfred Deverena, on half-pay, Royal Marines,

died on Nov. 13, at Croydon, aged 80. He entered the service in Oct., 1809, and retired on half-pay, Aug., 1814. He served at the blockade of Brest and Rochelle, and at the capture of several vessels, 1812-14.

Colonel Robert Alexander Cuthbert, on retired full pay, 15th Foot, died on Nov. 27, at Allt Dinas, Cheltenham, aged 67. He entered the service Sept., 1823; became Lieut., July, 1825; Capt., May, 1829; Major, March, 1845; Lieut. Col., June, 1854; and Col., March, 1856.

Lieut. Col. William Dashwood Hoste, of the Bengal Staff Corps, and Commandant 6th Punjaub N.I., died on Oct. 28, at Derah Ismail Khan, in the Punjaub. He entered the service, April, 1843. He served in the Crimean campaign in 1855, as a Capt. of Division of the Land Transport Corps (medal with clasp for Sebastopol, and Turkish medal). Served in the Indian mutiny campaigns of 1857-9; led the upper column of attack against the rebel village of Ramijee (thanked by Government), and served throughout the Oude campaign of 1858-9. Commanded the 6th Punjaub Infantry during the Umbeyla campaign of 1863-4, and was thanked "for marked gallantry in action" on Oct. 6, 1863 (medal with clasp).

Lieut. Col. Edward William A. Vaughan, late of the Royal North Gloucester Militia, died on Nov. 27, at Old-Street House, near Blake-ney, Gloucestershire.

Major Wadham Wyndham Bond, late of the 4th Foot, and formerly Adjutant of the Armagh Light Infantry Militia, died on Nov. 30, at Armagh, aged 56.

Capt. Thomas Vaughan, late of the Royal North Gloucester Militia, and D.L. of that county, died on Oct. 26, at New House, near Newnham Gloucestershire, aged 86.

General Henry Lechmere Worrall, of the Bengal Cavalry, died on Dec. 8 at Clifton, aged 74. His commissions bear date as follows — Cornet, Aug. 16, 1819; Lieut., May 22, 1822; Capt., June 26, 1826; Major, Jan. 12, 1834; Lieut. Col., Nov. 16, 1838; Brevet Col., March 18, 1849; Col., Oct. 21, 1852; Major Gen., Nov. 28, 1854; Lieut. Gen., June, 10 1862; and Gen., March 30, 1869.

Lieut. Col. Percy Scott. J.P., late of the Isle of Wight Militia Artillery, and of the 98th Foot, died on Dec. 8, at Newport, Isle of Wight, aged 80. He entered the service, June, 1812; became Lieut., Nov. 1815; and retired on half pay, Aug., 1817. He served in the Peninsula.

Major Thomas Winter Sheppard, formerly of the 87th Foot and 25th, Foot, died on Dec. 4, at Witley Vicarage, Surrey, aged 35.

Major Albert William Murray, late of the 5th Royal (Elthore) Middlesex Militia, died on Dec. 5, at 41 Great Ormond Street, Queen's Square, aged 64.

Major Alexander Drury, of the Madras Staff Corps, and Commandant of the Native Infantry Dépôt at Palaveram, died on Nov. 1. on board the P. & O. steamer Delhi, off Galle, aged 40. He entered the service, Dec., 1849; became Lieut., Nov., 1856; Capt., Dec., 1861, and Major, Dec., 1869.

Capt. Henry Folliott Powell, late of the Ceylon Rifle Regiment, died on Dec. 6, at Went Heuse, West Malling, aged 69.

Albert Arthur Erin Lethbridge, Esq., late of the 13th Light Dragoons, died on Nov. 7, at Ottawa, Canada West.

Lieut. Col. Richard Howorth, on retired full pay, Royal Engineers, died on Dec. 9, at Boulogne-sur-Mer, aged 71. He entered the service, Aug. 1825; became Lieut., April, 1827; Capt., Sept. 1840; Major, Nov. 1851; and Lieut. Col., Nov., 1854. He was actively employed in Canada during the rebellion in 1837-38-39, and served also in the Kaffir war in 1846 (medal).

Capt. Thomas Bullock Webster, late of the 15th Regiment, Indian Army, died on Dec. 10, at Aspley Guise, Bedfordshire.

Capt. Henry Martin, of the 26th Bombay Native Infantry, died on Nov. 26, on his passage home from Bombay.

Lieutenant William Henry Bernard, of the Royal Artillery, died on Dec. 5, at Abbots Comberleigh, Devon, aged 23. He entered the service, Jan., 1870.

Lieut. Arthur Charles Newman, late of the 25th Foot, died on Dec. 11, at Cintra Park, Upper Norwood, aged 21. He entered the service March 1867, and became Lieut., Oct., 1871,

Lieut. John Rollo Harriman, of the 21st Foot, died on Dec. 15, in London, aged 26. He entered, Dec., 1865; and became Lieut., July, 1870.

Commander John Garnham (Retired List O), of Buxhall Vale, Suffolk, and Hill House, Great Yarmouth, died on the 26th inst., in his 84th year.

Staff Surgeon Alexander Kilroy (retired) died on the 22nd inst., at 6 Shaftesbury Terrace, Kensington, aged 66.

Major General Burton Daveney, on retired half pay, 1st Foot, died recently at Norwich, aged 73. He entered the Service, April, 1820; became Lieut., July, 1825; Capt., Nov., 1827; Major, Nov., 1841; Lieut. Col., Nov., 1851; Col., Nov., 1854; and Major Gen., 1861. He served with the Royal Scots in Canada, during the rebellion of 1837, also the Crimean campaign of 1854, including the battles of Alma and Balaklava, and siege of Sebastopol (medal with three clasps, 5th class of the Medjidie, and Turkish medal).

Colonel George Francis Robert, Lord Harris, K.S.I., of the East Kent Militia, formerly Governor of Madras, died Nov. 23, at Belmont, Faversham, aged 62.

Major Fitzsimons, of the New South Wales Permanent Military Force, died recently in that colony.

Captain Robert Nairne Boyes, late of the 55th Regiment, and a Military Knight of Windsor, died on Nov. 26, at Windsor Castle.

Captain Charles Henry Ellice, late of the 19th Hussars, died on Sept. 8, at Sandgate, near Brisbane, Queensland.

Captain William Hankey, late of the 9th Lancers, died on Nov. 26, at Warley Lodge, Brentwood, aged 65.

Lieutenant Ralph Thompson Ommanney, of the 107th Foot, died Oct. 22, at Barrackpore, India. He entered the service, July, 1870, and became Lieut., Nov., late of the 100th Foot, died Nov. 21, at Hampstead, aged 45.

Captain Frank Ramsden (H.I.K. List) died on the 25th inst., at Hexthorpe, in his 76th year. He entered the Navy, March 19, 1808, as 1st class vol., on board the *Tigre*, employed in the Mediterranean, where he continued employed as Midshipman in the *Royal George*, *Blake*, *Caledonia*, and *Malta*, until Feb., 1815. In the *Tigre* he united, Oct., 1809, in the pursuit which led to the self-destruction of, near Cape Cette, of the French ships of-the-line *Robust* and *Lion*; and witnessed the capture and destruction, by the boats of a squadron of several armed and other vessels in the Bay of Rosas. In the *Malta* he was present at the siege of Tarragona, and in different operations on the coast of 1813. After serving with Sir John Duckworth in the *Impregnable*, and again with Rear Admiral Hallowell in the *Royal Sovereign* and *Tonnant*, on the Plymouth and Cork stations, he was promoted, to the rank of Lieut. His subsequent appointments were—Dec. 6, 1822, to the *Prince Regent*, bearing the flag of Admiral Hallowell at the Nore—and March 11 and June 23, 1823, and Aug. 21, 1825, to the *Isis*, *Spartiate*, and *Wellesley*, all flag ships of Sir G. Eyre, with whom he served as Signal Lieut. (in the *Spartiate* and *Wellesley*) on the South American station, until advanced to his late rank, Dec. 15, 1826. He was since on half pay.

Retired Admiral John Lyons, died at Reading on the 15th inst., in his 84th year. This officer entered the Navy, Sept. 20, 1798. On the renewal of hostilities in 1803 he joined the *Magnificent*, in which ship, while attached to the in-shore squadron off Brest, he was wrecked on the Black Rocks in March 1804. Being received the following Sept. into the *Victory* flag-ship of Lord Nelson, he was afforded an opportunity, Oct. 21, 1805, of sharing the glories of Trafalgar. He was in consequence promoted, while with Lord Collingwood in the *Queen*, to the rank of Lieutenant, Dec. 24 in the same year. He attained the rank of Commander June 27, 1814; and from Aug. 26, 1828, until posted, July 22, 1830, was employed in that capacity at the Cape of Good Hope on board the *Jaseur*. He has since been on half-pay. He became retired Rear-Admiral in 1855; Vice-Admiral in 1862; and attained his late rank in 1866.

Captain Cecil William Buckley, V.C., K.L.H. (1862) died on the 7th inst., at Madeira, aged 42. He passed his examination, July 2, 1851; was promoted to the rank of lieutenant, Jan. 11, 1854; and was appointed May 24 following to the *Miranda*. He had the Crimean medal, with the Sebastopol and Asoff clasps; was a Knight of the Legion of Honour, and had received the Order of the Medjidie of the 5th class.

STATIONS OF THE ROYAL NAVY IN COMMISSION.

*(Corrected to December 23.)**With the Dates of Commission of the Officers in Command.*

- Aboukir, 24, sc., Comdre. A. de Horsey, 1859, Jamaica
 Achilles, 26, Capt. R. P. Hamilton, 1856, Portland
 Agincourt, 28, Capt. Adeane, Rear-Adm. MacDonald, Channel Squadron.
 Antelope, 2, Lieut.-Com. Charles S. P. Woodruffe, 1860, Constantinople
 Ariadne, 26, Capt. the Hon. H. Carpenter, 1866, special service
 Asia, Capt. the Lord Gilford 1859, Flag of Rear-Adml. Sir L. M'Clin-toch, Guard Ship of Reserve, Portsmouth
 Audacious, 14, Capt. C. W. Hope, 1861, River Humber
 Aurora, 28, Capt. S. Douglas, 1865, Devonport
 Avon, 4, Com. ———— China
 Barrosa, 17, Capt. L. J. Moore, 1863, ordered home
 Basilisk, 6, pad, Capt. J. Moresby, 1864, Australia
 Bellerophon, 15, Capt. M'Crea, 1862, Channel Squadron
 Bittern, 3, Com. P. Stevens, W. C. of Africa
 Black Prince, 28, Capt. E. Lacy, 1862, Greenock
 Blanche, 6, sc., Capt. C. H. Simpson, 1866, Australia
 Boscawen, 20, Com M. Hare, 1866, Training Ship, Portland
 Boxer, 4, Lieut.-com. W. Fitzgerald, 1861, Pacific
 Brilliant, 16, Com. W. H. Brent, 1866, Naval Reserve Drill Ship, Dundee,
 Britannia, 8, Cadet Training Ship. Capt. F. A. Foley, 1860, Dartmouth
 Britomart, 2, Lieut.-Com. Basil E. Cochrane, 1866, N. America and West Indies.
 Briton, 10, Capt. Malcolm, 1866 East Indies
 Cadmus, 16, Capt. W. H. Whyte, 1864, China
 Caledonia, 30, Capt. J. Montgomerie 1861, Devonport
 Cambridge, 20, gunnery ship, Capt F. A. Herbert, 1864, Devonport
 Cameleon, 7, sc., Com. C. Mainwaring, 1867, Pacific
 Castor, 22, Commander R. B. Nicholetts 1868, Drill Ship, North Shields
 Cherub, 2, Lieut.-Com. F. C. Baker, 1861, N. America and W. Indies
 Clio, 18, Commodore. F. H. Stirling, 1869, Australia
 Clyde, 12, Com, R. H. Boyle, Aberdeen
 Cockatrice, 2, sc., Com. G. D. Morant, 1866, Mediterranean
 Coquette, 4, Lieut.-Com. E. D. Law, 1861, W. C. of Africa
 Columbine, 3, Com. E. W. Hereford, 1866, East Indies
 Cossack, 16, Capt. R. G. Douglas, 1866, Australia
 Crocodile, 2, Capt. G. H. Parkin, 1866, Indian Troop Service,
 Curlew, 3, Com. D. Boyle, 1865, China
 Dædalus 16 Com. E. T. Parsons, 1866, Naval Reserve Drill ship, Bristol
 Danae, 6, sc., Capt. W. S. Brown, 1866, N. America and W. Indies
 Daphne, 5, Com. R. S. Bateman, 1866, East Indies
 Dart, 5, Com. Denny, 1868, S. E. Coast of America
 Dasher, 2, st. ves., Capt. W. F. Johnson, 1864, Channel Islands
 Dido, 6, Capt. C. Chapman, 1866, Australia
 Dove, 2, Lieut J. G. Jones, 1865, China
 Duke of Wellington, 23, Captain Hon. C. Glyn, 1861, Admiral Sir G. Mundy, Portsmouth
 Durham, 20, Com. W. H. Goold, 1867, Sunderland
 Druid, Capt. H. M. Nelson, 1866, West Coast of Africa
 Dwarf, 4, sc., Commander W. Bax, 1867, China
 Eagle, 16, Com. Guy O. Twiss, 1866 Naval Reserve Drill Ship, Liverpl.
 Egmont, receiving ship, Capt. G. A. C. Brooker, 1862, Rio de Janeiro
 Elk, 4, Com. J. Barnett, 1867, China
 Endymion, 22, Capt. E. Madden, 1865, particular service
 Euphrates, 2, Capt G. C. T. D'A Irvine, 1867, Troop service
 Excellent, gunnery ship, Capt. H. Boys, 1857, Portsmouth
 Favourite, 10, Captain L. Somerset, Queensferry
 Fawn, 15, Com. H. P. Knevitt, 1866, Pacific

- Fisgard**, 42, Staff-Com. F. Inglis, 1857, Greenwich
Flora, 10, Com. J. R. Creagh, 1864, Simon's Bay
Fly, 4, Com. T. T. Phillips, 1864, N. America and W. Indies
Fox, 2, sc. store ship, Staff-commander S. Braddon, 1866, store service
Ganges, 20, training ship, Com. A. R. Tinklar, 1867, Falmouth
Glasgow, 28, Capt. H. Fairfax, 1866, Rear-Adm. A. Cumming, E. Indies
Growler, 4, Com. E. H. Verney, 1866, Mediterranean
Hart, 4, Commander P. H. Royse, 1865, Mediterranean
Hector, 20, Capt. T. Cochrane, 1857, Southampton Water
Helicon, Lieut.-Com. F. Rougemont 1864, special service
Hercules, 12, Capt. W. Dowell, 1858, Channel Squadron
Hibernia, receiving ship, Com. E. D. P. Downes, 1864, Rear Adm. E. Inglefield, Malta
Himalaya, 4, Capt. W. Grant, 1867, troop service
Hornet, 4, Com. Noel Osborn, 1866, China
Immortalité, 28, Capt. Mc. L. Lyons, 1862, Portsmouth
Implacable, 24, Com. A. H. Kennedy, 1866, Training Ship, Devonport
Impregnable, 78, Capt. J. C. Wilson, 1865, Training Ship, Devonport
Indus, Capt. C. Fellowes, 1858, Rear Admiral Sir W. Hall, Devonport
Invincible, 14, Capt., Soady, 1865, Mediterranean
Iron Duke, 14, sc., Capt. W. Arthur, 1867, Rear-Adm. Shadwell, China
Jackal, 2, st. ves., Lieut.-com. H. P. Clanchy, 1861, Coast of Scotland
Jumna, 2, Capt. F. W. Richards, 1866, troop service
Juno, 6, Capt. J. K. E. Baird, 1864, ordered home
Leven, 3, Lieut.-com. A. W. Whish, 1864, China
Lively, 2, Com. E. H. Seymour, Channel Squadron
Lord Warden, sc., 18, Capt. T. Brandreth, 1863, Vice-Adm. Sir Hastings R. Yelverton, K.C.B., Mediterranean
Lynx, 4, Com. J. S. Keats, 1866, East India station
Magpie, 3, gunboat, Com. P. Doughty, 1866, East Indies
Malabar, 3, Captain T. B. Sullivan India Troop Service
Martin, 10, Lieut.-Com. C. Gordon, Portsmouth
Midge, 4, Com. C. C. Rising, 1865, China
Minstrel, 2, Lieut.-Com. W. Parsons, 1861, North America and W. Indies
Minotaur, 34, Capt. R. Fitzroy, 1872, Rear-adm. G. T. Phipps-Hornby, Channel Squadron
Mosquito, 4, Lieut.-Com. W. Bond, Devonport
Myrmidon, 4, Com. R. Hare, Devonport
Nankin, 50, Capt. R. Courtenay, 1859, Pembroke
Narcissus, 35, screw, Capt. J. Hopkins, 1867, Rear-adm. F. Campbell, C.B., Devonport
Nassau, 5, Com. W. Chimmo, 1864, ordered home
Nereus, 6, store depot, Staff-com. W. Sharp, 1867, Valparaiso
Nimble, 5, Com. R. Harrington, East Indies
Niobe, 4, Com. Sir L. Loraine, Bart., 1867, North America and W. Indies
Northumberland, 26, sc., Capt. J. H. Alexander, C.B., 1863, Channel Squadron
Opossum, 2, Lieut. H. Fairlie, 1864, Amoy
Orontes, 2, Capt. J. L. Perry, 1867, troop service
Orwell, 2, Lieut.-Com. F. Dent, 1860, Queenstown
Pallas, 8, Capt. C. J. Rowley, 1866, Malta
Pembroke, 25, sc. Captain G. W. Watson, 1864, Vice-adm. C. G. J. B. Elliot, C.B., Sheerness.
Penelope, 10, Capt. C. Wake, 1859, Harwich
Pert, 4, Com. C. G. Jones, 1865, Brazils
Peterel, 3, Com. C. G. Stanley, 1867, Pacific
Pheasant, 2, Lieut.-Com. H. Crohan, 1862, Gibraltar
Pigeon, 2, Lieut.-Com. the Hon. F. Crofton, 1859, Mediterranean
Pioneer, 2, Lieut.-Com. T. H. Larcon, 1863, W. C. of Africa
Plover, 3, Com. H. N. Hippisley, 1866, N. America and West Indies
President, 16, Com. J. B. Scott, 1861, Naval Reserve Drill Ship, City Canal
Princess Charlotte, 12, Comdre. F. H. Shortt, 1858, Receiving Ship, Hong Kong
Pylades, 17, Capt. A. C. Strode, 1863, S. E. America
Racoon, 22, sc., Capt. E. H. Howard, 1864, North America and West Indies
Rattlesnake, 17, Com. J. E. Commerell, C.B., 1859, Cape of Good Hope

- Rapid**, 3, Com. Hon. V. A. Montagu, 1867, Mediterranean
Reindeer, 7, Captain Kennedy, 1867, Pacific
Repulse, 12, Capt. C. T. Curme, Rear-Admiral C. F. Hillyar, Pacific
Research, 4, Capt. C. Buckle, 1864, Mediterranean
Revenge, Capt. B. S. Pickard, 1865, Rear-adm. Heathcote, Queenstown
Rinaldo, 7, Com. George Parsons, 1865, China
Ringdove, 3, Com. T. M. Maquay, 1867, China
Rocket, 4, Com. A. R. Wright, 1864, South East America
Rosario, 3, sc., Com. H. J. Challis, 1865, Australia
Royal Adelaide, 26, Capt. T. P. Coode, 1862, Adml. Sir H. Keppel, K.C.B., Devonport
Royal Alfred, 18, sc., Capt. Henry F. Nicholson, 1866, Vice-Admiral E. Fanshawe, K.C.B., North America and West Indies
Salamander, 2, Staff-Com. E. Youel, 1865, Channel Squadron
Salamis, 2, st. ves. Lieut.-Com. S. S. Smith, 1861, China
Scout, 21, Capt. R. P. Cator, 1866, Pacific
Scylla, 16, Capt. C. R. Boxer, 1866, ordered home
Seagull, 3, Commander Stubbs, 1865, West Coast of Africa
Serapis, 2, Capt. H. D. Grant, 1864, Indian troop service.
Strius, 6, Capt. David Miller, 1863, North America
Spartan, 8, Capt. J. S. Hudson, 1866, N. America and W. Indies
Sphinx, 6, Capt., H. B. Phillimore, C.B., 1864, N. America and W. Indies
St. Vincent, 26, Training Ship, Com. H. Hand, 1867, Portsmouth
Sultan, 12, Capt. E. W. Vansittart, C.B., 1856 Channel Squadron
Supply, 5, Staff com. Arguembau, 1867, W. C. of Africa
Swallow, 3, Com. W. Silverlock, 1865, N. A. and W. Indies
Swiftsure, 14, Capt. W. Ward, 1864, Mediterranean
Sylvia, 5, Com. H. C. St. John, 1866, Japan
Tamar, 2, Capt. W. J. Grubbe, 1866, Troop Service
Teazer, 4, Com. J. Fitzmaurice, 1866, China
Tenedos, 8, Capt. E. H. Ray, Pacific
Terror, 16, sc. Capt. E. D'O. D'A. Aplin, 1861, Bermuda
Thalia, 6, Capt. H. Woolcombe, 1866, China
Thistle, 4, Com. H. Leet, 1866, China
Topaze, 31, Capt. E. Hardinge, 1865, Devonport
Torch, 5, sc., Com. H. N. Dyer, 1866, W. C. of Africa
Trincomalee, 16, Com. J. Mead, 1866, Naval Reserve, West Hartlepool
Valiant, 24, Captain N. Bedingfield, 1862, River Shannon.
Valorous, 12, Captain A. Thrupp, 1865, Devonport
Vanguard, 14, Capt. D. Spain, 1862, Kingstown
Victoria and Albert, steam yacht, Capt. H.S.H Prince Leiningen, G.C.B., 1860
Vulture, 3, Com. R. Cay, 1866 E. Indies
Wizard, 2, Lieut.-com. H. Edwards, 1861, Mediterranean
Wolverine, 17, Capt. H. B. Wratishaw, 1865, East Indies
Woodlark, 3, Com. J. F. Luttrell, 1865, N. America and W. Indies
Zealous, 20, ironclad, Capt. F. A. Hume, 1865, Flag of Rear Admiral A. Farquhar, Passage home
Zebra, 7, Com. Hon. A. D. S. Denison, 1866, China

STATIONS OF THE BRITISH ARMY.

(Corrected up to the 23rd December, 1872, inclusive.)

The numbers placed after the station indicate the regiment to which the Depot companies are attached.

1st Life Guards—Regent's Park
 2nd do.—Hyde Park
 Royal Horse Guards—Windsor
 1st Dragoon Guards—Dublin
 2nd do.—Brighton
 3rd do.—Maidstone
 4th do.—Dundalk
 5th do.—Manchester
 6th do.—Aldershot
 7th do.—Norwich
 1st Dragoons.—Dublin
 2nd do.—Edinburgh
 3rd Hussars—Bombay, Canterbury
 4th do.—Bengal, do.
 5th Lancers—Bengal, do.
 6th Dragoons—Cahir
 7th Hussars—Hounslow
 8th do.—Longford
 9th Lancers—Woolwich
 10th Hussars—Colchester
 11th Hussars—Bengal, Canterbury
 12th Lancers—Leeds
 13th Hussars—Aldershot
 14th do.—Newbridge
 15th Hussars—Bombay, Canterbury
 16th Lancers—Madras, do.
 17th do.—Ballincollig
 18th Hussars—Madras, Canterbury
 19th do.—Aldershot
 20th do.—Bengal, Canterbury
 21st do.—Bengal, do.
 Grenadier Guards (1st bat.)—Wellington Barracks
 Do.—(2nd bat.)—Tower
 Do.—(3rd bat.)—Chelsea Barracks
 Coldstream Gds. (1st bat.)—Wellington Barracks
 Do.—(2nd bat.)—Dublin
 Scots Fusilier Gds. (1st bat.)—Chelsea
 Do.—(2nd bat.)—Tower
 1st Foot (1st bat.)—Aldershot
 Do.—(2nd bat.)—Bengal, (1st. bat. 1st)
 2nd do. (1st bat.)—Bombay, (2nd bat.)
 Do. (2nd bat.)—Devonport
 3rd do. (1st bat.)—Bengal, (2nd. bat.)
 Do. (2nd bat.)—Dover
 4th do. (1st bat.)—Portsmouth
 Do. (2nd bat.)—Woolwich
 5th Foot (1st bat.)—Bengal, (2nd bat.)
 Do. (2nd bat.)—Kilkenny
 6th do. (1st bat.)—Bengal, (2nd bat.)
 Do. (2nd bat.)—Curragh
 7th do. (1st bat.)—Aldershot
 Do. (2nd bat.)—Cork

8th do. (1st bat.)—Bengal, (2nd bat.)
 Do. (2nd bat.)—Preston
 9th do. (1st bat.)—Guernsey
 Do. (2nd bat.)—Shorncliffe
 10th do (1st bat.)—Hongkong (Depot bat)
 Do. (2nd bat.)—Burmah, (2nd bat. 7th)
 11th do (1st bat.)—Bengal, (2nd bat.)
 Do. (2nd bat.)—Glasgow
 12th do. (1st bat.)—Athlone
 Do. (2nd bat.)—Bengal, (1st bat.)
 13th do. (1st bat.)—Malta, (2nd bat)
 Do. (2nd bat.)—Dublin
 14th do. (1st bat.)—Bengal, (2nd bat.)
 Do. (2nd bat.)—Chester
 15th do (1st bat.)—Cork
 15th do. (2nd bat.)—Gosport
 16th do. 1st bat.)—Jersey
 Do. (2nd bat.)—Aldershot
 17th do. (1st bat.)—Bengal, (2nd bat.)
 Do. (2nd bat.)—Devonport
 18th do. (1st bat.)—Malta (2nd bat.)
 Do. (2nd bat.)—Aldershot
 19th do. (1st bat.)—Gosport Forts
 Do. (2nd bat.)—Bengal, (1st bat.)
 20th do. (1st bat.)—Newry
 Do. (2nd bat.)—Buttevant
 21st do. (1st bat.)—Madras, (1st. bat. 23rd)
 Do. (2nd bat.)—Burmah, (2nd bat. 11th)
 22nd do. (1st bat.)—Aldershot
 Do. (2nd bat.)—Fermoy
 23rd do. (1st bat.)—Pembroke
 Do. (2nd bat.)—Mullingar
 24th do. (1st bat.)—Gibraltar (dep bat.)
 Do. (2nd bat.)—Madras, ditto
 25th do. (1st bat.)—Curragh
 Do. (2nd bat.)—Bengal, (1st. bat.)
 26th do.—Bengal, (99th)
 27th do.—Gosport
 28th do.—Malta (94th)
 29th do.—Barbadoes, (77th)
 30th do.—Aldershot
 31st do.—Gibraltar, (101st)
 32nd do.—Cape of Good Hope (90th)
 33rd do.—Colchester
 34th do.—Curragh
 35th do.—Sheffield
 36th do.—Bengal, (1st bat. 23rd)
 37th Foot—Bengal, (104th)
 38th do.—Dover
 39th do.—Bengal, (depot bat.)
 40th do.—Bengal (2nd bat. 8th)
 41st do.—Bengal, (1st bat. 23rd)
 42nd do.—Devonport

43rd do.—Madras (2nd bat. 7th)	79th do.—Parkhurst, (103rd)
44th do.—Madras (depot bat.)	80th do.—Singapore (2nd bat. 20th)
45th do.—Madras, (94th)	81st do.—Gibraltar (27th)
46th do.—Aldershot	82nd do.—Chatham
47th do.—Fleetwood	83rd do.—Bombay (depot bat.)
48th do.—Madras, (depot bat.)	84th do.—Curragh
49th do.—Bombay, (95th)	95th do.—Bengal, (3rd)
50th do.—Colchester	86th do.—Cape, (61st)
51st do.—Bengal (50th)	87th do.—Nova Scotia, (1st bat. 12th)
52nd do.—Malta, (103rd)	88th do.—Aldershot
53rd do.—Bermuda, (33rd)	89th do.—Madras, (2nd bat. 22nd)
54th do.—Bengal (depot bat.)	90th do.—Aldershot
55th do.—Bengal, (47th)	91st do.—Fort George
56th do.—Bombay (33rd)	92nd do.—Bengal, (91st)
57th do.—Kinsale	93rd do.—Edinburgh
58th do.—Bengal (88th)	94th do.—Newport
59th do.—Bombay, (47th)	95th do.—Aldershot
60th do. (1st bat.) Nova Scotia (4th bat.)	96th do.—Bengal (101st)
Do. (2nd bat.)—Bengal, do.	97th do.—Dublin
Do. (3rd bat.)—Aden do.	98th do.—Templemore
Do. (4th bat.)—Winchester	99th do.—Shorncliffe
61st do.—Enniskillen	100th do.—Portsmouth Hill Forts
62nd do.—Bengal, (2nd bat. 17th)	101st do.—Manchester
63rd do.—Bengal (Depot Bat.)	102nd do.—Parkhurst
64th do.—Limerick	103rd do.—Aldershot
65th do.—Bengal (84th)	104th do.—Portsmouth
66th do.—Bombay, (46th)	105th do.—Bengal, (50th)
67th do.—Burmah (1st bat. 4th)	106th do.—Bengal, 35th)
68th do.—Bombay (35th)	107th do.—Bengal, (104th)
69th do.—Bermuda, (Chatham)	108th do.—Bombay, (97th)
70th do.—Bengal (100th)	109th do.—Bengal, (2nd bat. 20th)
71st do.—Gibraltar, (Fort George)	Rifle Brigade (1st bat.)—Dover
72nd do.—Bengal ditto	Do (2nd bat.)—Birr
73rd do.—Ceylon, (35th)	Do. (3rd bat.)—Portsmouth
74th do.—Malta, (42nd)	Do (4th bat.)—Dublin
75th do.—Cape of Good Hope, (57th)	1st West India Regiment—Jamaica
76th do.—Madras, (depot bat.)	2nd do.—Demerara
77th do.—Portland	Ceylon Rifle Regiment—Ceylon & China
78th do.—Belfast	Royal Malta Fencible Artillery—Malta

Depot Battalion, Chatham.

ROYAL ARTILLERY.

A Horse Brigade—Peshawur	11th Brigade—Sheffield
B do.—Aldershot	12th do.—Plymouth
C do.—Woolwich	13th do.—Mean Meer
D do.—Bangalore	14th do.—Newcastle
F do.—Umballah	15th do.—Gibraltar
Depot, R.H.A.—Maidstone	16th do.—Barrackpore
1st Brigade—Woolwich	17th do.—Dover
2nd do.—Ceylon	18th do.—Kirkee
3rd do.—Halifax	19th do.—Meerut
4th do.—Dublin	20th do.—Secunderabad
5th do.—St. Thomas's Mount	21st do.—Portsmouth
6th do.—Bombay	22nd do.—Woolwich
7th do.—Portsmouth	23rd do.—Kamptee
8th do.—Lucknow	24th do.—Morar
9th do.—Ahmedabad	1st Depot do.—Sheerness
10th do.—Malta	2nd do.—Woolwich

PROMOTIONS AND APPOINTMENTS.

NAVY.

Admiralty, Nov. 22.

The Rev. C. E. Hodson has this day been appointed a chaplain in her Majesty's Fleet.

Nov. 25.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870. Lieut. E. Royse has this day been placed on the Retired List, with permission to assume the rank of retired commander.

Nov. 29.

The undermentioned promotions have taken place:—Commanders: C. G. F. Knowles, J. G. Mead, W. H. Maxwell, to be capt. in her Majesty's Fleet, with seniority of Nov. 29; Lieuts.: B. E. Cochrane, J. D. R. Hewitt, G. W. Hand, S. S. Smith, A. H. Markham, to be commanders in her Majesty's Fleet, with seniority of Nov. 29.

Nov. 29.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870—Paymr. W. H. Ozzard has been placed on the Retired List of his rank from the 27th ult.

Dec. 2.

Admiral Sir Sydney C. Dacres, G.C.B., has been appointed Visitor and Governor of Greenwich Hospital, from the 30th ult., under the provisions of the Act. 28 and 29 Vict., cap., and of her Majesty's Order in Council of Feb. 4, 1869.

The following promotions, to date the 30th ult., have been made:—Comm. the Lord W. T. Kerr to

be capt. in her Majesty's Fleet; Lieut. A. A. F. Fitzgeorge to be comm. in her Majesty's Fleet; Sub Lieut. W. D. Walker to be lieut. in her Majesty's Fleet.

Dec. 28.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870—Lieut. W. C. Shuckburgh has this day been placed on the Retired List, with permission to assume the rank of retired commander. Chief Engineer T. Duncanson has been placed on the Retired List of his rank from this date.

Dec. 4

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870:—Capt. H. C. Majendie has been placed on the Retired List of his rank from Nov. 30.

The undermentioned officer has this day been promoted to the rank of Chief Engineer in her Majesty's Fleet:—T. E. Richards.

Dec. 5.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, the undermentioned officers have been placed on the Retired List:—Staff Com. N. G. Arguimbau, from the 30th ult. Navigating Sub Lieut. J. R. Gow from the 2nd inst.

Dec. 9.

Edward Maile Tims, Esq., has this day been appointed a naval instructor in her Majesty's Fleet; the Rev. E. D. Morley has this day

been appointed a chaplain in her Majesty's Fleet.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, the undermentioned officer has been placed on the Retired List of his rank, from the 3rd inst.:—Chief Engineer J. Gee.

Dec. 11.

Sub Lieut. F. H. Henderson has been promoted to the rank of Lieut. in her Majesty's Fleet with seniority of 7th instant, specially for his services in capturing a slave dhow off Ras el Had whilst serving in her Majesty's ship Vulture.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, the undermentioned officers have been placed on the Retired List:—Navigating Lieuts. W. H. Worsfold, from the 4th inst.; J. B. Haines, from this date; Assistant Paymr. W. A. Stevens, from this date.

Dec. 14.

Charles Alfred Stratford, Esq., has this day been promoted to the rank of chief engineer in her Majesty's Fleet.

Dec. 16.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, Assist. Paymr. W. H. E. Roberts has this day been placed on the Retired List.

In accordance with the provisions of her Majesty's Order in Council of Aug. 9, 1872, Navtg. Sub Lieut. R. H. C. Hebden has been placed on the Retired List from the 12th inst.

The undermentioned officers have this day been promoted to the rank of surgeon in her Majesty's Fleet:—J. Halpin, H. S. Lauder, H. F. Nathan.

Dec. 19.

In accordance with the provisions of her Majesty's Order in Council of Feb. 5, Sub Lieut. A. W. Brabazon has this day been placed on the Retired List of his rank.

Commanders: R. H. Harris to Achilles; R. G. Kinahan to the Trincomalee, vice Comm. Mead, promoted; Edward W. Hereford, to Columbine, vice Tucker; Noel S. F. Digby, to Rattlesnake; Hugo S. Peason to the Lord Warden.

Staff Commander: R. S. N. Pearce to Supply, vice Arquimbau, invalided.

Lieuts.—Arthur B. Mansell, F. J. Rendell, and William H. J. Nowell, to the Clio; Hugh M. Tyler, to the Royal Adelaide; J. W. Sunderland, to Valiant; Fred. V. Isaac, to Aurora, vice McHardy, resigned; John A. H. Trotter, to Indus, vice Aldham; Edward P. Hocker, to Revenge; Coutenay A. Hayes, to Valiant, his appointment to Revenge having been cancelled; C. H. Millet, to Cruiser; James Evans, to Excellent; William M. Carey, to Achilles; Herbert W. Dowding to Excellent, to requalify in gunnery.

Dec. 10.—Flag. Lieut.—Lieut. the Hon. Archibald R. Hewitt to be flag lieut. to Admiral Sir Geo. Rodney Mundy, K.C.B., commander in chief at Portsmouth.

Nov. 28.—Lieuts.—Chas. J. F. Hodgkinson and Frederick G. J. Lillingston to Excellent. R. M. Sperling to Duke of Wellington, additional, for service in Devastation; Hon. A. C. Littlejohn to Salamia, in command, vice Smith, promoted; W. H. Richards to Britomart, vice Cochrane, prom. Arthur G. Fullerton to the Cambridge, to complete short course of gunnery; Henry St. V. Jenkins to the Topaze; W. G. Scott to the Ariadne; Joshua Cole to the Duke of Wellington, for gunnery duties. C. F. Day, of the Royal Adelaide, to Merlin, John Brown (B.) to Clio, additional, for disposal.

Sub Lieuts. — William Henry Webster, to Royal Adelaide (supy., for disposal); Arthur Channer, to Challenger (as supy.); H. Ponsonby, to Royal Adelaide. Blanchard R. M. Coward, to Doris; Lord Francis H. P. Cecil, to Lord Warden. Henry D. Archdall.

Cæsar F. de M. Malan, Harold G. Bud, and George A. Smith to Aurora; and Algernon E. Thomas to Immortalité. John Owen to Cruiser. Powell C. Underwood, Cæsar de F. Malan, Henry G. Napier, and Hubert G. Giles to the Clio.

Navtg. Sub Lieuts.—Thomas E. Cope to Merlin; and J. H. Purches, to the Clio.

Midshipmen — Murray N. B. Harris. Arthur R. Beck, Arthur C. Middlmass, and John Casement, to the Doris; Frederick Roope and Cecil G. F. Boothby, to the Topaze; Ernest Duncombe and Spencer Hesketh, to the Aurora. Crawford J. M. Conybeare, to Hercules; Francis G. S. Laye, to Invincible. Henry B. Molesworth, to Glasgow. George T. Spencer and Arthur G. Gallow to Immortalité. Arthur R. F. Baily to Lord Warden.

Chaplains—Rev. Wil. Dickson, to the Hector; Dawson Morley, to the Resistance.

Chaplain and Naval Instructor: Rev. W. Warner Parry has been appointed to the Pallas.

Surgeons—James Long to Black Prince. Thomas R. Warren to Topaze; Dr. Wm. Lloyd to Duke of Wellington, for Lisbon Hospital.

Assist. Surgeons.—Dr James W. Fisher to Vanguard. Robert Grant to the Clio, for disposal. J. D'Arcy Harvey, to Flora. Edwd. Clive to the Chatham Division of Royal Marines; James Donovan to Pioneer; Herbert M. Nash to Pembroke, additional, for the reserve. Henry Clerke, to the Merlin.

Paymasters—C. B. L. Brohman to the Devastation. Charles O. Salmon to Rosario. Fredk. Lucas to Pallas.

Assist. Paymasters—Charles A. Dunbar to Resistance. C. F. A. Broadway to Rapid; Alfred de Denne to Pioneer; W. F. Woods to St. Vincent; John H. Cleverton to Hart; and Chas. F. Fauvel to

Topaze. Joshua Taylor to Aboukir. Henry Nowell to Topaze.

Assist. Clerk—Joseph Green to Cruiser.

Chief Engineers—Walter T. Fry, to the Pembroke, for service in the Encounter. W. Davidson to Pembroke; John Puswett to Asia additional, for Urgent.

Engineers—James Barre to Topaze; W. A. Stewart to the Asia for Devastation. Richard W. Topp, to the Revenge, for service in tender; James Phillips, to the Topaze; James Dalton, to the Indus, for service in the Princess Alice. Thomas Scott (D), to Revenge. Wm. Thomson to Immortalité.

Second Class Assist. Engineers—W. A. Howlett to the Challenger, as additional. Wm. J. Parsons to Clio, additional, for disposal.

ROYAL MARINES.

Admiralty, Nov. 16

The following promotions and appointments have taken place in the Royal Marine Light Infantry, viz.:—Lieut. T. M. Whale to be sec. capt. at the Plymouth Division, vice Prichett, promoted; Lieut. E. O. B. Gray, of the Plymouth Division, to be sec. capt. at the Portsmouth Division, vice Poyntz, retired, contingent on his passing the required examination within six months after his return from foreign service.

Admiralty, Nov. 19.

The following promotion and appointment has taken place in the Royal Marine Light Infantry, viz.:—Lieut. G. H. T. Colwell, of the Portsmouth Division, to be sec. capt., vice Morice, retired, and appointed to the Portsmouth Division (Nov. 14),

Dec. 11

The following promotions and appointments have taken place in the Royal Marine Light Infantry, viz.:—Col. and Sec. Comm. P. C.

Penrose, C.B., to be col. comm. of the Plymouth Division, vice Suther, period of command expired; Nov 21. Lieut. Col. and Brevet Col, W. A. G. Wright. of the Portsmouth Division, to col. and sec. comm. at the Plymouth Division, vice Penrose: Nov. 29, Capt. and Brevet Major J. Bunce, of the Plymouth Division, to be

lieut. col. at the Portsmouth Division, vice Wright; Nov. 29. Secd. Capt. G. M. Shewell to be capt., vice Bunce; Nov. 29. Capt. Shewell will be appointed to a Division hereafter to be named; Lieut. H. W. Bamber to be sec. capt., vice Shewell, and to be appointed to the Chatham Division: Nov. 29.

ARMY.

THE ARMY GAZETTE.

War Office, Pall Mall, Nov. 26.

Royal Engineers—Lieut. R. F. Morriss to be capt., vice W. J. Engledue, retired on temporary half pay, Nov. 2; Lieut. G. A. L. A. Whitmore resigns commission, Nov. 27.

The temporary commissions as Lieut. of the undermentioned officers to be made permanent, dated July 23, 1870:—J. E. Gibbs, T. R. Main, W. Pitt, C. Wilkinson, H. H. Hart, C. B. Henderson, F. J. Romilly, E. Dickinson, C. A. Rochfort-Boyd, H. L. Jessep.

Chaplains' Department—The Rev. R. R. Patterson to be chap. of the Fourth Class, dated April 14, such antedate not to carry back allowances.

VOLUNTEER GAZETTE.

War Office, Nov. 26

Where not otherwise specified the following commissions and announcements bear date Nov. 27, 1872:—

21st Aberdeenshire Rifles—Albert Thomson, gent., to be ens.

3rd Cambridgeshire Rifles—Ens. G. F. Roumieu resigns commission.

2nd Cardiganshire Rifles—Lieut. W. P. Evans to be capt.; Ens. W. W. Smith to be lieut.

1st Carmarthenshire Rifles—Ens. R. S. Lewis to be lieut.

10th Cornwall Rifles—Henry Durette Foster, gent., to be ens.

22nd Cornwall Rifles—William Hambly Lower Clark, gent., to be ens.

6th Cumberland Rifles—Thomas William Dickinson, gent., to be ens.

10th Derbyshire Rifles—Frederic Charles Arkwright, gent., to be ens.

6th Devonshire Rifles—Capt. C. E. R. Charter resigns commission.

18th Devonshire Rifles—Lieut. G. Pearse to be capt.

21st Devonshire Rifles—Capt. E. P. Charlewood resigns commission; Lieut. C. W. Hole to be capt., vice Charlewood.

1st Edinburgh Artillery—First Lieut. R. Greig resigns commission; George Aikman, gent to be Qrmr.

1st Fifehire Rifles—Lieut. W. Simpson resigns commission.

8th Fifehire Rifles—Lieut. H. Mungall resigns commission.

6th Flintshire Rifles—Dashwood Parry, gent., to be lieut.

3rd Glamorganshire Artillery—First Lieuts. J. P. Thompson and B. Pratt and Henry Oakden Fisher, Esq., to be capt.

16th Glamorganshire Rifles—Capt. H. O. Fisher resigns commission.

1st Gloucester Artillery—Capt. J. H. Hirst and First Lieut. H. Cooke resign commissions.

2nd Isle of Man Artillery—Capt. R. Rowe, First Lieut. H. M. Scott, and Second Lieut. C. McConochie, resign commissions.

1st Kincubrightshire Artillery—Second Lieut. J. Cranstown to be first lieut.

1st Lanarkshire Artillery—Jas. Provan, gent, to be assist. surg., vice Smith, resigned.

1st Lanarkshire Engineers—Archibald Thos. Struthers, gent., to be sec. lieut.

19th Lancashire Rifles—Surg. D. Dewar and Hon. Qrmr. D. Aitken resign commissions.

1st Lancashire Artillery—The services of First Lieut. W. C. Shoolbred have been dispensed with.

4th Lancashire Artillery—Lieut. Col. H. H. Hornby resigns commission.

33rd Lancashire Rifles—Capt. R. W. Colin resigns commission.

1st Middlesex Engineers—Capt. P. J. Peile to be major; First Lieuts. E. J. Gardiner and F. Josselyn to be capt.; Sec. Lieuts. H. C. Baggallay and A. H. V.

Newton to be first lieuts.; Hon. Qrmr. G. J. Kain resigns commission; George James Kain, gent., to be Qrmr.

20th Middlesex Rifles—Capt. H. Robbins resigns commission.

40th Middlesex Rifles—Lieut. R. Pattison resigns commission.

40th Middlesex Rifles—Gerald Geo. Liddell, Esq., Capt. half pay late 23rd Foot, to be adjt.; Nov. 14. Adj. Liddell to serve with the rank of capt., under the provisions of Article 196, Regulations for the Volunteer Force, dated Sept. 18, 1863.

1st Administrative Battalion Midlothian Rifles—Surg. T. J. F. Messer, M.D., resigns commission.

2nd Norfolk Rifles—John Tolver Waters, gent., to be ens.

1st Adm. Brigade Northumberland Artillery—Adj. F. Turner to serve with the rank of Capt., under the provisions of Article 196, Regulations for the Volunteer Force, dated Sept. 18, 1863.

2nd Northumberland Rifles—D. Jackson, gent., to be act. assist. surg.

2nd Pembrokehire Artillery—Charles Augustus Christie, gent., to be first lieut.

3rd Roxburgh Rifles—Richard Lees, gent., to be ens.

17th Shropshire Rifles—John Hawley Edwards, jun., gent., to be ens.

1st Somerset Engineers—Capt. J. R. Bramble resigns commission.

23rd Staffordshire Rifles—Ens. T. Gatis and W. A. Brown resign commissions.

28th Staffordshire Rifles—Ens. P. J. Worthington to be lieut.

11th Surrey Rifles—Ens. R. L. Hunter to be lieut.

5th Wiltshire Rifles—Edward Nicolls Carless, gent., to be acting assist. surg.

10th Worcestershire Rifles—J. Baily Grencock gent., to be acting assist. surg.

20th Worcestershire Rifles—G. W. Grosvenor, gent., to be lieut.

1st East Riding of Yorkshire Rifles—Major C. H. Bannister and

Ens. J. S. Hewitt resign commissions.

1st North Riding of Yorkshire Artillery—Second Lieuts. C. M. E. Schmitz and J. Ellerton to be capt.

7th West Riding of Yorkshire Rifles—Lieut. J. Eddison to be capt.

THE ARMY GAZETTE.

War Office Pall Mall, Dec. 3.

Where not otherwise specified, the following commissions and announcements bear date Dec. 4, 1872:—

3rd Dragoon Guards—Pryce M. Pryce, gent., to be sub lieut., vice Barlow, transferred to the 103rd Foot.

9th Lancers—The Hon. Derrick Warner William Westenra to be sub lieut., vice Tribe, superseded for absence without leave since Sept. 18.

Grenadier Guards—Lieut. and Capt. the Hon. W. H. P. Carington to be capt. and lieut. col., vice Brevet Col. W. Earle, made supy. whilst holding the appointment of Military Secretary to the Viceroy and Governor General of India; Lieut. V. Hatton to be lieut. and capt., vice the Hon. W. H. P. Carington.

1st Foot—Lieut. R. H. Derman retires from the service, receiving the value of an ensy.

3rd Foot—The undermentioned officers, whose final transfer to the Indian Staff Corps was announced in the *Gazette* of Nov. 15, to receive the value of their ensigncies:—Lieuts. M. A. Gray and M. R. Spence.

9th Foot—Henry James Shuckburgh, Indian Cadet, to be sub lieut., in succession to Lieut. Walsh, retired.

11th Foot—The commission as Adj. of Lieut. D. T. Kinder to be antedated to July 12, 1871.

12th Foot—Qrmr. Sergeant G. Shields, from the 6th Foot, to be sub lieut., in succession to Lieut. W. J. Boyes, promoted.

17th Foot—Sub Lieut. A. A. Bruce, from the 2nd West India Regt., to be sub. lieut., vice V. G.

Tippinge, transferred to the 1st Foot; Montagu S. Heath Foulger, gent., to be sub. lieut.

20th Foot—Major W. L. D. Meares to be lieut. col., vice D. L. Colthurst, retired on half pay; Oct. 5. Capt. J. J. S. O'Neill to be major, vice Meares; Oct. 5. Lieut. B. K. Whiteford to be capt., vice O'Neill, Oct. 5.

22nd Foot—Major and Brevet Lieut. Col. W. A. Armstrong, from the Dépôt Batn., Chatham, to be lieut. col., vice Brevet Col. D. Anderson, retired on half pay.

24th Foot—Lieut. D. D. Pryce, whose final transfer to the Indian Staff Corps was announced in the *Gazette* of Nov. 15, to receive the value of an ensy.

33rd Foot—Staff Surg. R. W. Clifton to be surg., vice Surg. Maj. J. Sinclair, M.D., appointed to the Staff.

42nd Foot—Lieut. G. M. C. Moore to be capt., vice W. S. Walter, retired; Nov. 23.

46th Foot—Keith Henry St. G. Young, India Cadet, to be sub. lieut.

60th Foot—Capt. C. F. Terry retires from the service, receiving the value of his commission.

62nd Foot—Duncan P. Robertson, Queen's Cadet, to be sub. lieut., in succession to Lieut. T. J. FitzSimon, promoted.

66th Foot—Lieut. B. R. Hobart to be adjt., vice Lieut. J. Healey, promoted; Oct. 16.

79th Foot—Major and Brevet Lieut. Col. G. M. Miller to be lieut. col., vice K. R. Maitland, retired on half pay; Oct. 19. Capt. and Brevet Major P. Percival to be major; vice Brevet Lieut. Col. Miller; Oct. 19.

80th Foot—Lieut. S. Lang, from half pay, late 47th Foot, to be lieut., vice J. H. Alston, retired.

87th Foot—Eyre Evans Stopford, Queen's Cadet, to be sub. lieut., in succession to Lieut. J. G. Leadbitter, promoted in 97th Foot.

90th Foot—Lieut. E. Holberton retires from the service, receiving the value of his commission.

97th Foot—Capt. and Brevet Major W. R. Annesley to be maj.,

vice Petrie, retired on half pay; Aug. 31. Capt. C. H. Browne to be major, vice Cannon, retired; Nov. 2. Lieut. J. G. Leadbitter, from the 87th Foot, to be capt., vice Brevet Major Annesley; Aug. 31; such antedate not to carry back pay prior to Dec. 4. Lieut. C. E. Partridge to be capt., vice Browne; Nov. 2. Lieut. J. G. Smith, from the 57th Foot, to be capt., vice Marshall, retired.

102nd Foot—Henry Tempest Hicks, gent., to be sub. lieut.

Rifle Brigade—Major and Brevet Lieut. Col. A. J. Nixon to be lieut. col., vice Brevet Col. W. A. Fyers, C.B., retired on half pay; Oct. 19. Capt. J. Brett to be major, vice Brevet Lieut. Col. A. J. Nixon; Oct. 19. Lieut. the Hon. W. M. W. C. Burrell to be capt., vice Brett; Oct. 19. Lieut. A. Cope to be capt., vice J. O. Vandeleur, retired; Nov. 13.

Medical Department—Surg. Major J. Sinclair, M.D., from the 33rd Foot, to be staff surg. major, vice Staff Surg. R. W. Clifton, appointed to the 33rd Foot.

Brevet

Lieut. Col. J. I. Macdonnell, 71st Foot, having completed the qualifying service with the rank of Lieut. Col., to be col.; Nov. 27. Capt. G. Cookes, half pay unattached, to be major; Feb. 16. Capt. and Brevet Major G. Cookes, half pay unattached, to be lieut. Col.; Oct. 2.

To have honorary rank of Major—Paymr. and Hon. Capt. J. Wray, 3rd Foot; Nov. 7. Second Capt. J. Anderson Morice, retired R.M. L.I.; Nov. 14.

To have the honorary rank of Capt.—Lieut. J. H. Hullett, retired R.M.A., Nov. 14, Lieut. and Deputy Com. F. Graham, Madras Establishment, May 20.

To have the honorary rank of Ens.—Deputy Assist. Com. E. Scully, Madras Establishment; May 20.

Memoranda.

The Queen has been graciously pleased to appoint Col. C. Hemery, Lieut. Col. Com. of the St. Helier's Battalion of the Royal Jersey Mili-

tia, to be her Majesty's Aide-de-Camp for the service of her Militia in Jersey.

Lieut. J. G. Smith, 57th Foot, formerly of the 1st West India Regt., to be promoted capt. in the 97th Foot, in recognition of his gallant services when engaged against the Indians at Orange Walk, British Honduras.

Staff Assist. Surg. J. Dallas Edge, M.D., to be promoted Staff Surg., in recognition of his gallant services when engaged against the Indians at Orange Walk, British Honduras, as soon as he has qualified for the superior grade, in accordance with Article 337 of the Royal Warrant of Dec. 27, 1870.

Sub Inspr. of Army Schools S. Nicholas Stockham, half pay, has been permitted to commute his retired allowance, Nov. 13.

The undermentioned Officers retire from the service, receiving the value of their commissions: W. A. King, half pay, late 17th Foot; Major H. Brackenbury, half pay, late Dépôt Batt.; Capt. and Brevet Lieut. Col. G. Cooke, half pay, unattached; Capt. Roderick Dhu G. H. Burgoyne, half pay, late 93rd Foot; Capt. W. Cavanagh, half pay, late Royal Canadian Rifle Regt.; Lieut. W. K. Barrett, half pay, late 14th Foot.

THE MILITIA GAZETTE.

War Office, Pall Mall, Dec. 3.

Where not otherwise specified the following commissions and announcements bear date Dec. 4, 1872:—

Royal Cornwall and Devon Miners Artillery—Charles Lock Eastlatke, gent., to be lieut. (supy.).

Royal North Gloucester—Capt. P. J. D. Wykeham resigns his commission. Lieut. A. C. Newland resigns his commission; Nov. 2. Lieut. G. Milward to be capt., vice Wykeham, who resigns; Nov. 4.

Herefordshire—Capt. and Hon. Major E. Williams resigns his commission also is permitted to retain his rank, and to continue to wear the uniform of the regiment on his retirement.

Royal London—Capt. J. Britten is granted the honorary rank of major.

3rd Royal Middlesex—Walter Hyde Atherton, gent., to be lieut. (supy.).

5th Royal Middlesex—William Noirmont Conyers D'Arcy, gent., to be lieut. (supy.).

2nd Stafford—G. A. E. T. Gervis, gent., to be lieut. (supy.); Nov. 23.

Royal Sussex—Capt. R. Curzon resigns his commission. Lieut. F. C. L. Rasch to be capt., vice Curzon, who resigns.

1st Royal Lanark—the services of Lieut. Peter Toronso Buchanan are dispensed with.

Leitrim—W. A. Peyton, gent. to be lieut. (supy.).

Royal Tyrone Fusiliers—Francis Forbes Ellis, gent., to be lieut. (supy.). Assis. Surg. E. C. Thompson resigns his commission.

Yeomanry Cavalry.

Middlesex—Capt. A. Rickards (Capt. 1st Dragoon Guards) to be major (supy.).

Westmoreland and Cumberland—Capt. H. Spencer resigns his commission.

THE VOLUNTEER GAZETTE.

War Office, Pall Mall, Dec. 6.

Where not otherwise specified, the following commissions and announcements bear date Dec. 7, 1872:—

1st Berkshire Rifles—Rev. A. P. Purey-Cust, M.A., to be acting chap.

3rd Berkshire Rifles—Hon. Assist. Surg. S. Palmer to be acting assist. surg.

4th Berkshire Rifles—Hon. Assist. Surg. C. Hemming, M.D., to be assist. surg.

9th Berkshire Rifles—Hon. Assist. Surg. W. R. H. Barker to be acting assist. surg.

11th Berkshire Rifles—Hon. Assist. Surg. C. A. Barrett to be acting assist. surg.

1st Adm. Batt. Cambridge Rifles—Robert Muriel, gent., to be assist. surg.

3rd Cambridge Rifles—Hugh H.

Ley, gent., to be lieut., vice Hitchcock, resigned.

12th Cheshire Rifles — Arthur Wentworth Lyon, gent., to be ensign.

22nd Cheshire Rifles—J. Buckley, gent., to be ensign.

5th Cinque Ports Rifles—John Chapman, gent., to be acting assist. surg.

21st Devon. Rifles—E. Webber, gent., to be lieut.

1st Adm. Brigade Fifeshire Artillery—William Maitland Dougall, Esq., to be hon. col.

26th Kent Rifles—The services of Ens A. Cruikshank have been dispensed with.

1st Lanarkshire Artillery—H. W. L. Hime, Esq., Capt. Royal Artillery, to be adjt.; Nov. 26, Adjt. Hime to serve with the rank capt.

42nd Lanarkshire Rifles—James Aitken, gent., to be ens., vice Mason, resigned.

10th Lancashire Artillery—Capt. H. L. Birley resigns commission; First Lieut. C. A. Birley to be capt.

26th Lancashire Artillery—First Lieut. C. E. Proctor resigns commission; Second Lieutenant D. C. Anderson to be first lieut.

27th Lancashire Rifles—Ens. W. W. Cannon to be lieut.; Ensign J. Hesketh to be lieut.; Ensign J. C. Kay to be lieut.; Ens. J. H. Kevan to be lieut.

31st Lancashire Rifles — Lieut. H. Whitaker to be capt., vice Tweedale, who resigns; Ensign J. Greaves to be lieut., vice Whitaker.

1st London Rifles — Capt. W. Clode and Lieut. E. Towers resign commissions.

2nd London Rifles—Major R. Laming resigns commission.

2nd Middlesex Rifles -- James Keen, gent., to be ens., vice Pamphilon, promoted.

19th Middlesex Rifles—Fredk. Mortimer, gent., to be ensign, vice Warner, resigned.

36th Middlesex Rifles—Robert de Quincey Child, gent., to be ens.

2nd Northumberland Artillery—First Lieut. R. Huggup to be capt.

1st Adm. Brigade Orkney Artillery—Hon. Col. D. Balfour resigns his commission; David Balfour Esq., to be lieut. col.; Andrew Gold, Esq., Capt. 1st Orkney Artillery, to be major.

20th Renfrew Rifles—Ens. J. R. Wood to capt.

16th Somersetshire Rifles—Lieutenant H. E. Harbin to be capt.; Ens. W. A. Hunt to be lieut., vice Harbin.

21st Staffordshire Rifles—Henry Longneville Barker, gent., to be ensign.

1st Surrey Artillery—Sec. Lieut. C. H. Coles to be first lieut.

11th Surrey Rifles—Laurence Gifford Holland, gent., to be ens.

1st Sussex Artillery—William Seymour Burrows, gent., to be sec. lieut.

1st Warwickshire Rifles — Lieut. J. W. Lea to be capt.

THE ARMY GAZETTE.

War Office, Pall Mall, Dec. 10.

Where not otherwise specified, the following commissions and announcements bear date Dec. 11, 1872:—

1st Dragoon Guards—Sub. Lieut. P. Marrow to be lieut.; Oct. 28, 1871.

3rd Hussars—Sub Lieutenant I. MacIvor, from the 18th Hussars, to be sub lieut., in succession to Lieut. C. E. Nettles, promoted.

10th Hussars—Surg. W. Cattell, from the 20th Foot, to be surgeon, vice Surg. Major T. Fraser, M.D., appointed to the Staff.

13th Hussars—Captain R. J. A. Webb retires from the service, receiving the value of his commission.

20th Hussars—Lewis Edmond Gurney, gent., to be sub lieut., in succession to Lieut. M. S. Saunders, promoted.

21st Hussars—Lieutenant H. Coghlan to be capt., vice C. E. Farquharson, retired; Nov. 23.

Royal Artillery—Lieut. Col. and Brevet Col. H. H. Maxwell (late Bengal) from the Seconded List, to be col., vice H. A. Carleton, C.B., removed as a general officer; Oct.

6. Lient. Col. and Brevet Colonel A. Light (late Bengal) to be col., vice C. H. Dicken, C.S.I., placed upon the Seconded List. Major and Brevet Lient. Col. W. Dowell (late Bengal) to be lieut. col., vice Brevet Colonel Light, promoted. Capt. G. E. Maule to be major, vice H. W. Briscoe, who retires on temporary half pay. Capt. W. D. Carey to be major, vice Brevet Col. R. Biddulph, placed upon the Supernumerary List. Captain E. T. Hume (late Bengal) to be maj., vice Brevet Lient. Colonel Dowell, promoted. Lient. G. B. Wymer (late Bengal) to be captain, vice Hume, promoted. Lient. M. H. Saward (late Bengal) on the Supernumerary List, to be capt. Lient. S. E. Pemberton (late Bengal) to be capt., vice C. S. Jackson, placed upon temporary half pay. Lient. R. W. Smith (late Bengal) to be capt., vice A. S. Heyland, placed upon temporary half pay. Lient. W. G. Mulloy to be capt., vice E. W. Sandys, placed upon the Supy. List, on being appointed Adj. of the Forfar and Kincardine Militia Artillery. Lient. R. J. Hezlet to be capt., vice G. E. Maule, promoted. Lient. G. A. French, upon the Seconded List, to be captain. Lient. R. D. E. Lockhart to be capt., vice W. D. Carey, promoted. Lient. T. Wood to be capt., vice H. W. L. Hime, placed on the Snpy. List, on being appointed Adj. of the 1st Lanarkshire Artillery Volunteer Corps. Lieutenant T. M. Hitchins to be capt., vice G. L. Engstöm, placed on the temporary half pay list, without half pay. Lient. F. Galloway to be capt., vice E. Clayfield-Ireland, placed upon the temporary half pay list, without half pay. The undermentioned officers are placed on the Supernumerary List, but will not be succeeded, viz.:—Major A. S. Hunter; Capts.—G. G. Hannen, Brevet Major B. L. Forster, Brevet Major B. H. Pottinger (late Bombay), P. B. Raikes (late Bengal), C. E. Pritchard (late Madras), R. J. Abbott (late Bengal), E. V. Boyle, S. Cargill (late Bengal), W. E. Lockhart (late Madras), J. Charles

(late Bengal), F. W. M. Spring (late Bombay), W. R. C. Brough (late Madras), H. M. Mackenzie (late Bengal), W. E. Baring, R. H. Grant, H. A. Mackey, E. F. Chapman (late Bengal), J. G. Pollock (late Madras), F. J. Caldecott (late Bombay), A. I. Maclaverty (late Madras), and C. H. Seton (late Bombay). Lieuts.—M. H. Savard (late Bengal), D. Cowie, (late Madras) E. J. de Latour (late Bengal), F. R. Twynam (late Madras), M. J. K. Harman (late Bengal), J. A. Kelso, G. Swinley (late Bengal), A. N. Pearse, E. D. Shafto, J. F. Maurice, G. Firebrace, E. F. Cambier, W. H. F. Sorell, F. D. Graves, R. L. Price, C. W. E. Murphy, R. Wace, R. G. Fitzgerald, P. F. M. Baddeley, R. H. W. Plunkett, H. G. F. Siddons, C. C. Dyce, N. Powlett, J. S. Biscoe, J. D. Snodgrass, J. J. Congden, R. de Marylski, R. Mallock, A. L. Pringle, B. C. Graves, G. B. N. Martin, E. R. Elles, F. R. Ditmas, E. A. Johnson, L. L. Fenton, and C. H. Mayne. Staff Assist. Surg. W. J. Campbell to be assist. surgeon, vice Sly appointed to the Staff.

Royal Engineers—Captain W. Salmond to be instructor of musk., vice Major J. M. C. Drake, whose period of service in that appointment has expired; Nov. 30. Capt. B. Lovett (late Bengal), from the Seconded List, to be capt. on the Supernumerary List. The temporary commissions as Lient. of the undermentioned officers to be made permanent, viz.:—T. J. Tresidder; July 23, 1870. C. W. Sherrard; July 23, 1870. O. V. Boddy; July 23, 1870. G. F. Mann; July 23, 1870. F. B. G. D'Aquilar; Dec. 1, 1870.

2nd Foot—Sub Lient. W. H. Walmisley to be lieut.; Oct. 28, 1871.

3rd Foot—Sub Lient. R. R. B. Ternan to be lieut.; Oct. 28, 1871. Sub Lient. T. E. K. Addison to be lieut.; Oct. 28, 1871.

15th Foot—Qrmer. D. Wyllie, from 25th Foot, to be qrmer., vice W. Fraser, who exchanges.

17th Foot—Sub Lient. W. S. D. Liardet, from 2nd West India

Regt., to be sub lieut., in succession to Lieut. Hussey, retired.

20th Foot—Staff Surgeon T. R. Mould, M.D., to be surg., vice Cattell, appointed to the 10th Hussars.

24th Foot—Sub Lieut. J. Haughton to be lieut.; Oct. 28, 1871. Qrmr. J. Humphreys, from 85th Foot, to be qrmr., vice J. Hawkins, who exchanges.

25th Foot—Qrmr. W. Fraser, from 15th Foot, to be qrmr., D. Wyllie, who exchanges.

28th Foot—Sub Lieut. R. S. F. Walker to be lieut.; Oct. 28, 1871.

31st Foot—William E. Stokes, gent., to be sub lieut., in succession to Lieut. A. F. W. Royle, transferred to 43rd Foot.

35th Foot—Sub Lieuts. A. S. H. Gem and C. H. W. Cafe to be lieuts.; Oct. 28, 1871.

38th Foot—Lieutenant H. G. H. Stokes retires from the service, receiving the value of his commission.

42nd Foot—George Montgomery Munro, gent., to be sub lieut., in succession to Lieut. G. T. C. Moore, promoted.

4th Foot—Maj. J. S. Hand, from 82nd Foot, to be maj., vice F. D. Walters, who exchanges.

49th Foot—Lieut. T. F. King, from 91st Foot, to be lieut., vice E. R. Woodward, deceased.

50th Foot—Percy James Montgomerie Yaldwyn, gent., to be sub lieut., vice S. Watson, transferred to 85th Foot.

60th Foot—Capt. J. K. Watson, from the Supernumerary List, to capt., vice C. F. Terry, retired; Dec. 4.

64th Foot—Capt. F. S. Dugmore, from half pay, late Royal Canadian Rifle Regiment, to be capt., vice J. E. Le Mottée, retired.

65th Foot—Lieut. H. W. Price retires from the service, receiving the value of an ensigncy.

68th Foot—Lieut. A. L. Woodland to be adjt., vice Lieut. C. C. Hood, promoted; Oct. 19.

71st Foot—Sub Lieutenant E. Spencer to be lieut.; Oct. 28, 1871.

76th Foot—Lieut. C. C. Egerton receives the value of his commis-

sion, on final transfer to the Indian Staff Corps.

81st Foot—Sub Lieut. F. A. Heathcote to be lieut.; Oct. 28, 1871.

32nd Foot—Major F. D. Walters, from 44th Foot, to be major, vice J. S. Hand, who exchanges.

83rd Foot—Lieutenant R. W. S. Burnet retires from the service, receiving the value of his commission.

85th Foot—Qrmr. J. Hawkins, from 24th Foot, to be qrmr., vice J. Humphreys, who exchanges.

90th Foot—William Hawley, gent., to be sub lieut., in succession to Lieut. E. Holberton, retired.

91st Foot—C. Campbell, gent., to be sub lieut., in succession to Lieut. King, transferred to 49th Foot.

98th Foot—Sydney A. Trower, gent., to be sub lieut.

Rifle Brigade—Lieutenant F. G. D. Acland to be adjt., vice Lieut. G. A. Hillyard, promoted; Oct. 15. Lieut. L. R. Stopford-Sackville to instr. of musk., vice Lieut. Acland; Oct. 15.

Medical Department—Surgeon Major T. Fraser, M.D., from 10th Hussars, to be staff surg. major, vice Staff Surg. T. R. Mould, M.D., appointed to 20th Foot. Assist. Surg. W. Sly, from the Royal Artillery, to be staff assist. surg. vice W. J. Campbell, appointed to the Royal Artillery.

Half Pay—Major and Brevet Colonel P. Bayly, from half pay, unattached, late Dep. Qrmr. Gen., Mauritius, to be lieut. col.; Sept. 1. Capt. and Brevet Lieut. Col. F. S. Vacher, from half pay, late 22nd Foot, Dep. Assist. Adjt. Gen., Head Quarters (temporary), to be major.

Brevet.

Col. G. Erskine, half pay, late Military Train, to have the temporary rank of Brig. Gen., while in the command of a Brigade; Jan. 1, 1873.

Captain C. B. Smith, C.S.I., Madras Infantry, to have the local and temporary rank of major, while employed at Zanzibar with the

mission under Sir Bartle Frere, G.C.S.I., K.C.B.

The commission as Maj. Gen. of Maj. Gen. C. L. Barnard, C.B., R.M.A., to be antedated to March 6, 1668, in conformity with the terms of the Memorandum dated Horse Guards, May 3, 1870, such antedate not to carry back pay prior to July 10.

The commissions, as Brevet Lieut. Col. of the undermentioned officers to be altered as follows:—Maj. and Brevet Lieut. Col. G. O. Bowdler, 40th Foot, from Aug. 1 to July 10; Maj. and Brevet Lieut. Col. H. Strover, R.A., from Aug. 1 to July 10; Major and Brevet Lieut. Col. F. Mould, R.E., from Aug. 1 to July 10; Captain and Brevet Lieut. Col. W. J. Dorehill, half pay late 43rd Foot, and Staff Officer of Pensioners, from Aug. 27 to Aug. 1; Capt. and Brevet Lieut. Col. C. Jolliffe, R.M.A., from Oct. 2 to 27; Captain and Brevet Lieut. Col. H. L. Evans, R.M.L.I., from Oct. 6 to Oct. 2; Capt. and Brevet Lieut. Col. D. Stewart, half pay, late 92nd Foot, from Oct. 24 to Oct. 2; Capt. and Brevet Major F. W. Festing, R.M.A., to be lieut. col.; Oct. 24.

The commissions as Brevet Maj. of the undermentioned officers to be altered as follows:—Captain and Brevet Major W. Todd, half pay, late 81st Foot, and Staff Officer of Pensioners, from Aug. 1 Captain and Brevet Major R. W. Woods, half pay, late 3rd Foot, and Staff Officer of Pensioners, from Aug. 27 to Aug. 1; Captain and Brevet Major H. A. Chichester, 81st Foot, from Oct. 2 to Aug. 27; Capt. and Brevet Major S. F. Blyth, 35th Foot, from Oct. 6 to Oct. 2; Captain and Brevet Major A. M. Cardew, half pay, late Dépôt Battalion, and Staff Officer of Pensioner, from October 24 to Oct. 6; Capt. W. J. Kinsman, R.M.L.I., to be major; Oct. 24.

Memoranda.

Lieut. F. C. Hughes-Hallett, retired from the R.A., has been permitted to commute his retired allowance; Nov. 6.

The undermentioned officers re-

tire from the service, receiving the value of their commissions:—Maj. Gen. C. F. Parkinson, major, half pay, late Staff Officer of Pensioners; Major and Brevet Colonel R. Bruce, half pay, unattached; Major S. C. Head, half pay, late 61st Foot.

THE MILITIA GAZETTE.

War Office, Pall Mall, Dec. 13.

Where not otherwise specified the following commissions and announcements bear date Dec. 14, 1872:—

Cambridge—Capt. L. Reed is granted the hon. rank of major.

Royal Cardigan—Robert Lloyd Edwards, gent., to be lieut. (supy.).

The Essex Rifles—Capt. W. J. Coope resigns commission. Lieut. H. E. W. Rumbold to be capt., vice Coope.

Kent Artillery—Lieut. H. B. Harenc resigns commission.

1st Royal Lancashire—Lieut. E. A. N. Royds to be capt., vice Gandy, resigned.

2nd Royal Lancashire—Lieut. T. Gardner to be capt.

Royal London—Frederic George Mawer, gent., to be lieut.

2nd Royal Middlesex Rifles—William Jesser Coope, gent., to be capt. Lieut. W. Robertson to be capt. Lieut. J. L. B. Templer to be capt. William Gordon Burnett gent., to be lieut., vice Mainwaring, resigned.

Royal Monmouth—Capt. G. G. Tyler resigns commission, is granted the hon. rank of major, and is permitted to continue to wear the uniform on retirement.

1st or West Norfolk—Henry Percy Garnett, gent., to be lieut.

1st Royal Surrey—Francis C. Hughes Hallett, gent., to be capt.

Royal Sussex—Capt. J. F. Blake is granted the hon. rank of major.

Royal Wiltshire—Major F. Breton is permitted to retain his rank, and to continue to wear the uniform on his retirement.

2nd West York—Lieut. D. A. G. Lascelles resigns commission.

The Royal Aberdeenshire Highlanders—Alexander David Fraser, gent., to be lieut. (supy.).

Edinburgh Artillery—R. Greig, gent., to be lieut.

1st Royal Lanark — William H. Rowland, gent., to be lieut. (supy.).

Antrim Artillery—William Johnston Kirkpatrick, gent., to be lieut.

Kildare—Capt. C. Warburton is permitted to retain his rank and to wear the uniform on retirement.

Louth—Qrmr. E. Burke resigns his commission, is placed on a retired allowance, and is granted the hon. rank of capt. on retirement.

North Mayo — James Joseph Nolan, gent., to be assist. surg., vice Knott, removed.

Royal Tyrone Fusiliers—William Sproule Love, gent., to be assist. surg., vice Thompson, resigned.

Wexford—Francis Robert Leigh, gent., to be lieut. (supy.).

Yeomanry Cavalry.

Cheshire—Will. Graham Crum, gent., to be cornet, vice Frost, promoted.

Royal 1st Devon—Lieut. C. T. D. Acland to be capt., vice Sir T. D. Acland, promoted.

Lancashire Hussars—Cornet E. R. G. Hopwood to be lieut.; vice the Viscount Southwell, resigned.

Middlesex—Lieut. C. A. Piper to be capt., vice de Burgh, resigned.

THE VOLUNTEER GAZETTE.

War Office, Dec. 10.

Where not otherwise specified, the following commissions and announcements bear date Dec. 11, 1872:—

2nd Bute Artillery—Hon. Chap. the Rev. R. Thomson resigns commission; the Rev. H. H. Richardson to be acting Chaplain.

22nd Cheshire Rifles—Lieut. W. C. Cheshire to be capt.; Ensign W. J. Fletcher to be lieut., vice Cheshire.

1st Dumbartonshire Artillery—Thomas John Fordyce Messer, Esq., to be capt.

1st Administrative Battalion Durham Rifles—William Cuthbert Blackett, gent., be Assist. Surg.

6th Durham Rifles—Ens. C. W. Wright to be lieut.

4th Fifeshire Artillery—Second Lieut. J. Alexander to be first lieut., vice Grant, resigned.

6th Flintshire Rifles—Alexander Fair Jones, Esq., to be capt.

1st Gloucestershire Artillery—Edward Gustavus Clarke, gent., to be second lieut., vice Beckingham, resigned.

1st Haverfordwest Rifles—Jos. Babington Macaulay, gent., to be ens.

12th Lancashire Artillery—First Lieut. C. Slack resigns commission.

6th Lancashire Rifles—Lieut. H. Taylor and Ensigns J. J. Ashcroft and J. C. Butterworth resign commissions.

33rd Lancashire Rifles — The name of the ensign promoted to be Lieut. on Nov. 2, is Mauat, not Monat.

1st London Rifles—Capt. W. Haywood to be major.

2nd London Rifles—Hon. Col. Sir. A. S. Waugh resigns commission; Chas. Joseph Richardson, gent., to be ens.

3rd Middlesex Artillery—Chas. Slack, gent to be first lieut.

2nd Middlesex Rifles—William Henry Harding, gent., to be assist. surg.

28th Middlesex Rifles—Lieut. J. B. Boyd resigns commission.

38th Middlesex Rifles — Isaac George Johnson, gent., to be ensign.

46th Middlesex Rifles—Assist. Surg. S. Duke resigns commission.

10th Perthshire Rifles—Lieut. W. R. Craigie resigns commission.

2nd Selkirk Rifles—Lieut. G. Rodger to be capt., Ensign P. S. Lang to be lieut., vice Rodger; Thomas James Scougal Roberts, gent., to be ens., vice Lang.

4th Shropshire Rifles — Hon. Assist. Surg. R. Roe resigns commission.

1st Staffordshire Artillery—Sec. Lieuts. I. E. Everett and L. Wedgwood resign commissions.

2nd Stirlingshire Rifles—Ens. J. Hardie to be lieut.

4th Stirlingshire Rifles—Ens. J. N. M. Shand to be lieut., vice King, promoted.

11th Stirlingshire Rifles—Ens. A. Heaon to be lieut.

5th Surrey Rifles—The surname of the Ensign appointed on Nov. 9. is Gant, not Grant.

1st Tower Hamlets Artillery—Capt. R. Keysell resigns commission.

4th East Riding of Yorkshire Artillery—John Douglas Close, gent., to be sec. lieut.

1st North Riding of Yorkshire Artillery—Capt. J. S. Pennyman to be major.

3rd Administrative Battn. West Riding of Yorkshire Rifles—James Fowler, esq., to be surg.

1st West Riding of Yorkshire Rifles—William Arthur White, gent., to be lieut.; Ens. T. W. Swan resigns commission; Alfred Swarbreck, gent., to be ens., vice Swann; Francis Henry Anderson, gent., to be ens., vice Tippet, resigned; Alfred Carr, gent., to be ens.

THE ARMY GAZETTE.

War Office, Pall Mall, Dec. 20.

Where not otherwise specified, the following commissions and announcements bear date Dec. 21, 1872:—

8th Hussars—Lieut. B. D. Harrison, from the 18th Hussars, to be lieut., vice Gould, who exchanges.

18th Hussars—Lieut. C. O. Gould, from the 8th Hussars, to be lieut., vice Harrison, who exchanges; George Henry Thomas Van Notten Pole, gent., to be sub lieut., vice MacIvor transferred to the 3rd Hussars.

Grenadier Guards—Charles W. Sydney, Viscount Newark, to be sub lieut., in succession to Lieut. Hatton, promoted.

Coldstream Guards—Lieut. and Capt. A. R. M. Wood to be instr. of musk., vice Lieut. and Capt. the Hon. E. H. T. Digby, who has resigned; Dec. 6.

20th Foot—George R. Summers,

gent., to be sub. lieut., in succession to Lieut. Whiteford, promoted.

58th Foot—Lieut. H. Skey retires upon temporary half pay.

65th Foot—Algernon George A. Durand, Indian Cadet, to be sub lieut., in succession to Lieut. Price, retired.

74th Foot—Capt. H. S. Andrews retires from the service, receiving the value of his commission.

83rd Foot—Richard Charles G. Mayne, India Cadet, to be sub lieut., in succession to Lieut. Burnet, retired.

Rifle Brigade—Edward Prittie, gent., to be sub lieut., in succession to Lieut. the Hon. W. M. W. C. Burrell, promoted.

Medical Department—Staff Surg. E. K. Birnie, having completed twenty years' full pay service, to be staff surg. major, under the provisions of Article 342 of the Royal Warrant of Dec, 27, 1870; Nov. 23.

Brevet.

Lieut. Col. F. L. Alexander, Royal Marine Artillery, having completed the qualifying service with the rank of Lieut. Col., to be col.; Dec. 1.

Memoranda.

Major J. W. Lutman, half pay, late Ceylon Rifle Regiment, retires from the service, receiving the value of his commission.

THE VOLUNTEER GAZETTE.

War Office, Dec. 20.

Where not otherwise specified the following commissions and announcements bear date Dec. 21, 1872:—

3rd Argyllshire Artillery—First Lieut. D. McCaig to be capt. vice Mac Dougall, resigned.

3rd Cambridgeshire Rifles—Lieut. A. Glen to be capt.

3rd Adm. Batn. Cheshire Rifles Adj. Swaine to serve with the rank of capt. from Feb. 9 instead of from June 1, as stated in the *Gazette* of May 31.

2nd Adm. Batn. Cinque Ports Rifles Wollaston Knocker, Esq., to be major.

8th Cinque Ports Rifles—Lieut

J. Hanvey to be capt., vice Knocker who resigns. Ens. W. H. Crundall to be lieut., vice Hanvey.

6th Devon Mounted Rifles—Ens. H. F. Viscount Ebrington, to be lieut., vice Smyth, resigned.

2nd Gloucestershire Rifles—W. Augustus Scott, gent., to be qrmr.

2nd Hertfordshire Rifles—Lient. A. J. Copeland to be capt., vice Capel, who resigns.

3rd Lanarkshire Rifles—Ens. A. R. Farm to be lieut., vice Gilchrist, resigned.

4th Lancashire Artillery—Thos. Fenwick Harrison, gent., to be first lieut.

1st Lancashire Rifles—Lient. F. H. Picton to be capt., Ensign J. A. Sherwood to be lieut., vice Picton, promoted.

15th Lancashire Rifles—George Herbert Leslie, gent., to be ens.

3rd London Rifles—Ensign J. Seath to be lieut.

4th Middlesex Rifles—Capt. C. H. Woodall and Lieuts. J. Finch and D. L. Henry resign commissions.

11th Middlesex Rifles—Lient. J. A. M. Robertson resigns commission.

15th Middlesex Rifles—Ens. J. Miles to be lieut. Ens. A. Murray resigns commission.

20th Middlesex Rifles—Ens. W. Price to be lieut.

26th Middlesex Rifles—Ens. W. J. Gilks to be lieut.

44th Middlesex Rifles—John J. Lane, gent., to be ens vice Sherborne, promoted.

1st Midlothian Rifles—Geo. F. Rayner, gent., to be ens. Douglas Scott, gent., to be ens.

2nd Norfolk Artillery—Second Lient. J. Ladyman to be first lieut., vice Morant, resigned.

2nd Oxfordshire Rifles—George Denis Darville Dudley, gent., to be lieut., vice Bickerton, promoted.

12th Surrey Rifles—Robert G. Hogg, gent., to be qrmr.

2nd Adm. Batn. Sussex Rifles—Surg. R. Turner, M.D., resigns commission; Assist. Surg. H. M. Holman, M.D., to be surg., vice Turner, who resigns; Robert Turner Head, gent., to be assist. surg., vice Holman, promoted.

6th Tower Hamlets Rifles—B. Henry Burge, Esq., Capt. half pay, late 59th Foot, to be adjt.; Dec. 6. Adj. Burge to serve with the rank of capt.; Sept. 18, 1863.

1st Warwickshire Rifles—George Gatey, gent., to be lieut., vice Partridge, who resigns.

1st West York Rifles—Lient. A. H. Russel to be capt.; Ens. G. H. F. Jones to be lieut.

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THE PUBLIC STORES, AND HOW TO SUPPLY THEM.

BY FRANCIS W. ROWSELL.

In an article published in *Macmillan's Magazine* for October, an attempt was made to point out certain facts in relation to the public expenditure upon stores, and to suggest reasons for a full and sufficient inquiry into the various methods upon which that expenditure proceeds. It was stated that a sum of eleven millions is yearly spent by the Government upon the purchase of stores, exclusive of building materials; that there is no uniformity of procedure prescribed by the Government or by the House of Commons for the guidance of the departments which, among them, spend these eleven millions; and that, for a variety of reasons, it is very necessary to take stock of existing systems in force at home and abroad, and to form out of them a plan according to which departmental heads might work, and the public and the House of Commons might criticize. Something was said of the methods of supply used in Germany, France, and Belgium; and reasons were given why some of the principal features of those systems could not be incorporated with our own. Considerations of time and space precluded any attempt to offer detailed suggestions for a comprehensive general scheme of supply suited to the conditions of English trade, and of the English public service.

It is the aim of the present article to deal with this omitted part of the subject, and to set out some of the points which seem to be capital and necessary to be considered.

At the outset, it is desirable to correct an impression which some have received from a perusal of the article referred to—viz., that there was an idea of establishing one central supply department of State, from which supplies of every kind should radiate. Nothing could be further from the settled convictions of the writer. All that was aimed at was the establishment of some general uniformity in method, so that the principles governing public supply might be intelligible to all; not the creation of a machine which, like the engines of a mastless ironclad, once thrown out of gear, would render the whole ship politic an unwieldy mass. No assault was meant upon the principle of subdivision of labour, such as is seen at work in the various spending departments. All that was advocated was the examination of the methods in use, with a view to building up one general method out of the master-pieces of many.

Now, it would seem that all things being equal, there are enormous advantages on the side of local as compared with central action in supply. The theory appears sound which advances that

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local want can best be met by local exertion ; whilst the experience of Germany in the recent wars tells as strongly in favour of local action as the experience of France tells against central Bureau and Board.

But it would be wrong to generalise from isolated facts, and unwise to depend, without further examination, upon experiences which may prove to have had special conditions. Considerations, geographical as well as economical, may make the German plan unworkable in this country ; whilst it may be that the system which failed in French hands would succeed in English hands, or that the system failed by reason of causes other than its own inherent weaknesses. Both systems deserve the very closest study : so do all the varied systems in force here in the public departments. To advocate this study in a way most conducive to the public good was the aim of the article in *Macmillan* ; to offer some suggestions *pour servir* in connection with that study is the object of the present article.

It would seem that, for the home service of England, independent local action is, with few exceptions, unsuited to the work of procuring supplies. The exceptions are supplies of food, and in some cases of fuel. For all other articles the seats of manufacture or of production are so concentrated, as to necessitate application to those particular localities ; and this being so, it seems to follow that it is better to gather into one list the wants of sub-divisions of a department, and going to market with a large order, to secure better terms and better workers, than to allow sub-divisions to bid against one another for the same articles in the same markets. The small size of England, as compared with either Germany or France, and the abolition, by our numerous railways, of distance between even extreme parts, are additional reasons for central action in the matter of supply. Delivery is as easily made at one port, or one station, as at another. The source of supply is central, there would seem to be no reason why the order should not be given centrally also. In England the seat of Government is also the seat of numberless manufactures, and, unlike either Berlin or Paris, it is the emporium for one-third of the commerce of the kingdom. The principle of concentration of industries finds its application in this country to an extent unknown abroad, and there are few British trades or manufactures which are not strictly localised. A few years ago, the west country cloths might have been said to be in rivalry with those of the north ; but the annihilation, through railways, of distance between Devon and Yorkshire has to a large extent established a community of interest, whilst the trade is year by year becoming more and more a northern speciality. If natural or mechanical difficulties still operated to localize manufactures of the same article in different parts of the country, it might—nay, it would be worth while to use local action in supplying the wants of the public service in

the district where those manufactures were established. As it is, nothing would be gained by supplying our Western army with cloth exclusively from North Tawton or Bridgewater, through contracts made by the staff in the west; whilst the men in the northern and eastern parts should be covered with material from the mills of Bradford or Leeds. Railways have made Leeds and Bridgewater convertible terms.

What advantage would—what disadvantage would not—flow out of sending Portsmouth and Chatham to the same market for metals and metal wares? If there were a Birmingham and a Wolverhampton near to Portsmouth, and another of each near to Chatham, there would be cause and reason for independent action. But since there is but one Birmingham and one Wolverhampton for the whole of England, the prudence of not raising markets by increasing the number of bidders is manifest. Everything which can be got locally should be so procured, regard being had to price and quality, compared with price and quality at other accessible places. But manufactured goods, and most of the raw materials from which they are made, are rarely found to be the subjects of local industry. Wherever they are not so, central action should be taken.

But of what sort should this central action be? Upon the right exposition of this point depends more than half the efficiency of the public services. The central action should be strictly representative, not original, and should rather be the result of concerted local action than an independent motion of its own. So far from originating requirements, it should leave the whole process and responsibility of demand to the local dockyard, camp, prison, or workhouse, contenting itself with seeing that everything demanded be got locally if possible; and, if not possible, then proceeding swiftly and wisely, as the intelligent servant, rather than as the master of all to procure and distribute the aggregated items which are required at all the stations, but can be had only at some one place of manufacture. The results of central and local action, too, should be the subject of review by central authority, for the purpose of comparing and checking the expenditure of one local establishment with another. Central assistance and criticism might even be applied before presentation of demand by the local establishment, but as aids only. The responsibility for demand and for appropriation of stores should be clearly defined, and as clearly laid upon the local officers. Theirs the fault which, according to its proportions, should be punishable with rebuke or dismissal, if too few or too many stores are kept in the depôts; theirs the responsibility for conversion and application of material; theirs the function to keep, use, and replenish, as if they felt that they were what in truth they are—trustees of the stores, to administer them for the State as if they were their own. Central authority should content itself with clearly defining the local

responsibility, with sheeting it home, and making it a veritable entity. It should not either bear or divide that responsibility. As regards the proper or improper expenditure of stores, its own function should be that of a judge who does not bear the sword in vain ; as regards the purveyance of stores where central action is necessary, its function should be that of an intelligent servant, not questioning the want, but satisfying it in the best and most thrifty manner possible. Its own answer to a Parliamentary accusation of departmental extravagance or inefficiency should be the vacant place of the local officer who was extravagant or inefficient, or of the central office-holder who failed to see and report the shortcomings of the responsible man.

The vice of central action, as that is generally understood, is that it assumes a responsibility which it cannot discharge, and that under its shield the original incompetents escape. The value of such decentralized action, coupled with responsibility to strict central supervision, as are indicated above, lies in this : that the real doers of work, conscious of their responsibility and untrammelled midway by office or Board, do their work under conditions the most favourable to best execution, and, having a distinct official existence, are spurred by emulation—born of certainty of comparison of their work with that of kindred establishments—to show themselves able and economical administrators of the work committed to them.

Decentralization of work and responsibility being the rule, and central action, as regards supply, assuming the representative shape of concerted local action, rather than an independent shape, it remains to be considered by what methods and processes local or central authority should procure supplies. Upon this part of the subject there will be many opinions. Indeed, it is not possible to be dogmatic on the point, without much more information than is at present furnished anywhere, as to the methods adopted in the several spending departments. Nothing short of thorough inquiry, followed by the formation of some well-considered and very elastic system, would enable one to speak authoritatively.

There are afloat many theories upon which to construct a comprehensive and efficient scheme ; but it is probable that safety lies in the framing of a model for which no design has yet appeared. There is a tendency amongst those who would organize for the State to build upon the basis to which they have been most accustomed, and to conclude that that which has answered thoroughly in the case of their own affairs will answer equally well in the departments of State. Thus, a military or a naval man who has worked and deservedly earned a reputation by pursuance of a plan founded upon the knowledge that military obedience must necessarily wait upon his orders, often thinks that a department which has to deal with the public (not amenable to military laws) may be organized as a regiment is organized. But such a man

might waste much time in calling "spirits from the vasty deep." The business world works and acts upon quite other than military rules, and will not depart from its customs, troublesome and and needlessly inconvenient though some of them be. A civilian's plan is not unlikely to proceed upon the assumption that men are governed by sheets of foolscap and printed schedules, and that they are terrified into compliance with demands by the appearance of a letter with "Immediate" on the top, and scolding "Minutes" curiously composed, having "with reference" at the beginning, and "serious inconvenience to the service" at the end.

A business man's plan for a State supply department is likely to be overmuch fitted upon the lines of his own peculiar business. This is a manifest evil, when the fact is recognised that, in effect, there are as many sets of practices as there are businesses. Multifarious as the duties of a spending department are, numerous as are the trades with which it is brought in contract, it would seem that something must be borrowed from the principles of each trade, and fitted into the organization of the department, if that organization is to proceed upon business principles alone. It requires a breadth and catholicity of view and feeling not often to be met with in business men, to construct upon a basis of the principles common to all business, and to avoid the implanting of those special features which ornament or disfigure particular branches. Even then it is not clear that the rules of commerce by themselves would be sufficient groundwork for the fabric of a public department. As with the officer, so with the commercial man, as organizer—there may be too much speciality imparted where more elastic general principles should obtain. Considerations enter into the composition of a public department which do not in any way apply to a house of business, or to a self-contained organism like a regiment. The requirements of the House of Commons, both as regards the executive and the accounts, are elements which of themselves forbid a strict analogy between the public and a private business. No merchant, no manufacturer, however wealthy, could afford to keep his accounts as the public accounts are kept. No house, however well ordered, could keep itself going if a tithe of the returns, statements, reports, and copies of correspondence, which are required of the State departments, were required for the information of the partners. These things are part of the cost of representative Government, and there is but one firm that can stand the expense. But in a greater or less degree they are necessary, and, being so, it behoves a departmental organizer to take them into account.

It would seem, however, that the principle upon which the departments spending store-money should be framed, ought to be commercial in the broad sense of the word, rather than professional. Who drives fat oxen should himself be fat; and it is doubtless true that the more a department, of which the functions

partake of a business or commercial character, conforms its practices to the practices of the commercial world, the more is it likely to do its business well, to understand and be understood. The political and parliamentary addenda to its duties must be apart from, and independent of, its commercial attributes. It must lay itself out, moreover, to satisfy those for whom it has to cater, just as a mercantile house lays itself out to please the taste of its customers; and if, in the case of the public department, the customers are, as generally they are, more fastidious and difficult to please than those with whom the other has to deal, so much more credit is due to that head who succeeds in pleasing.

There is one respect in which the head of the public department can never resemble the head of a mercantile house. He can never be, if he would hold his own, on a footing of intimacy or even slight social acquaintance with those he is engaged with in business. To the mercantile man such acquaintance is not only innocent, it is distinctly helpful in the conduct of his affairs. The official head must hold himself aloof, and forfeit whatever advantage acquaintance may give, or he must lay himself open to slanderous accusations. He can neither give nor take any personal civility.

He must be content to be ostracized from the society of many he would like to know, and to suffer at their instance the imputation that his conduct is dictated by pride instead of by necessity. He must also make his account with being libelled frequently, whilst the rules of the establishment he serves forbid him to defend his reputation in the place where it is assailed. He must endure lies and attacks—many of them meant for political personages, to whom, in respect of their adversaries, he fills the post of a whipping-boy. He must content himself, in return for his labour, with a remuneration at which many a managing clerk would smile, and most junior partners scoff, and he must be the faithful and humble servant of successions of administrations, each of whom may give him a fresh *modus* of operations, which he will be bound to carry out. Thus it will be seen that in more respects than one there is no strict analogy between the public and a private business.

But these last are personal matters, and, moreover, matters to which the departmental head may be said, by his acceptance of the post, to be a consenting party. The question remains, to what extent can the commercial principles of business, that is to say, the methods by which the business world acts in its own behalf, be incorporated in the departmental procedure?

Without going into nice considerations of what special customs prevail in particular trades—though these should be known by the department—it seems reasonable to say that general commercial practices should prevail; that where, for example, business people buy and sell through brokers, there the Government should not carve out a plan of dealing of their own, but buy and sell

through brokers also ; that the Government should be careful in all cases not to deal in a way alien to the trade intelligence or spirit. So surely as they do not conform, either wholly or in part, to the manner of the trade, so surely will the trade not find it worth its while to do business with the Government. Men who are outside the trade, as factors, agents, or middlemen—people who not only must cause an additional charge to the buyer, in the shape of their profit, but who cannot give that guarantee for good faith and due performance which is furnished by the manufacturer or the founder. If the rest of the world buys and sells tar by the barrel and wheat by the quarter, the Government must not insist in buying tar by the gallon, or wheat at per 100 lbs. ; if the trade sells sugar by the hundred-weight, allowing some additional pounds for tare and draft, the Government must buy on those terms, or somehow or other become an unnecessary loser. In England, the requirements of the Government in individual markets are for the most part far too small, compared with the requirements of trade, to make the market modify its customs or alter its laws, to suit an unusual method of business. Either the Government must deal in accordance with the spirit, if not with the letter, of the trade rule, or it must make up its mind to forego advantages more or less substantial, even in some cases to suffer positive loss.

But how is it possible, some will say, for the head of a supply department to know and observe the practices of all trades and markets? The purveyors for the wants of army and navy, if not of other services, must at one time or another be in all markets that are, and how is it possible they can be acquainted with the rules of all? It is quite impossible. Even if the heads of such departments knew all trade rules, and could pass an examination in commercial shibboleths, knew the allowances, tares, discounts, rebates, terms of prompt, and all kinds of trade mysteries, it would be physically impossible for them, unaided, to practise their knowledge. The conditions of markets vary from day to day, and are affected by causes which do not necessarily recur at least at the same periods. It is indispensable, therefore, that to be able to buy and sell with advantage, a man should be thoroughly conversant with all the facts and probabilities of his market. Universal knowledge is unattainable, and custom has confined the operations of the best men to the markets in which they are best instructed. Hence brokers and factors for particular branches of business, and not for all branches. To such men do merchants resort to buy and sell for them, paying for the special knowledge which experts living all their lives in the market alone can possess, that is to say, paying a small sum that they may not lose, or that they may gain a greater, by not ignorantly acting for themselves. Such men, the best of their respective branches, should also be at the disposal of

the heads of the Government Supply Departments; to advise when to buy and when to forbear from buying, and to secure to the department when purchase is made, all those advantages which, in the absence of known right to them, the market would be sure to withhold. Trusting to such men, not only as his agents, but as his advisers, the departmental head may do very well. He cannot possibly have any judgment of his own in the matter, and should he pretend to have one, the State will do well to dispense with his services, for he must end by being a dangerous empiric, who, sooner or later, will earn for himself and his department ridicule and failure. Judge of the power of the judges to form righteous judgment he may, nay, must be; but with this he should begin and end.

A thoroughly good staff of such agents as a successful merchant employs upon his business would enable a Government department to do as well for the State in respect of the trades in which factors are employable, as the successful merchant does for his firm. There seems to be no reason why thus far—and the limit includes most colonial produce, timber, many metals, and coal—the commercial principle should not be strictly applied to the Government department. But there are many things required in the Government service which are not trade articles at all. How shall these be procured?

The custom has been in nearly every department to procure them, and, indeed, all else, by means of advertisements and public tender. This plan has many advantages, and where it is admitted that commercial principles are not to rule, perhaps it is the best that can be devised. Where it must be resorted to, it may be rendered the most useful by framing the conditions as nearly as possible upon the rules of the trade from which tenders are sought. Schedules must be so drawn up as to admit of offers being made for distinctive groups of items, and so as not to compel masters of particular trades, if they offer at all, to offer for articles in another, though kindred trade. No unusual or unreasonable stipulations should be inserted, and great care should be taken to inspire confidence in the tribunal adjudicating upon the tenders, and still more in that charged with the duties of receipt on delivery of stores. Offers should be asked for specific quantities, not for "such as may be demanded," unless as in the case of fresh provisions at a port of call, it be absolutely uncertain and wholly impossible to ascertain, what quantity will be required in a given period. Too great a simplicity cannot pervade the conditions; too great an exactness cannot be seen in the patterns exhibited. In short, where from any cause an unbusinesslike way of procuring is resorted to, too great care cannot be taken to make the departure from trade method as slight as possible. Where the contrary is the case, the trade itself will not tender, except through middlemen, from whom the department should never cease its efforts to get free.

It would seem to belong to the commission of any Committee of Inquiry upon public store-getting, to prescribe the cases in which advertisement and tender should be adopted, and under what conditions, and the cases in which more directly commercial modes might be used. On them also would devolve the duty of stating the circumstances under which both commercial and uncommercial ways might be departed from, and to frame the necessarily very elastic rules under which a department might act in times of emergency, so as to procure supplies in the way most beneficial for the public service.

The sanctions which should compel fulfilment of the obligations entered into should also occupy the careful attention of an inquiring body. All vexatious fines and penalties should be excluded, and nothing should be inserted which it is not pre-determined to carry out. The Common Law power to purchase in default of delivery is probably the best enforcer of engagements, and if applied with discretion is very efficacious. But fanciful fines, arbitrary clauses, and unwieldy threats, are worse than useless. They are not only practically inoperative, they are also in the way of more efficient weapons.

It is, however, upon the constitution of the tribunal appointed to examine and receive goods delivered under contracts that, perhaps, the most care should be bestowed. There is, rightly or wrongly, a wide-spread belief in the inefficiency or the partiality of receiving officers, and in respect of some Boards coarser imputations are made. Though it is probably quite correct to say that corruption, in the sense of bribery of officials, is now-a-days rare, and in the case of the higher officers unheard of, there can be no manner of doubt that gratitude for favours to come once took a pecuniary shape. Time is needed to root out all belief in a practice which, though possibly now obsolete, is not so long out of date; but it would not be difficult to constitute such a receiving tribunal as would of itself materially assist Time in attaining this desirable object, whilst it would also go far to cure any sufferers from the old disease, who up to this time have proved incurable. Satisfy people that their goods are not passed upon by men of doubtful ability and small wages, but by skilled, trained persons, with salaries and positions above the temptation of bribes, and men who now stand aloof from public supply would continuously offer service. Give the right of appeal to arbitration in disputes upon facts, and no fair-dealing man could object to supply. The introduction, by Mr. Baxter, of the arbitration principle into Admiralty purchase business, was one of the most valuable acts of Mr. Childers' administration.

If it be desired to give an example of the extent to which concerted local action, such as has been advocated in this article, might be valuable; and of the way in which central authority might exercise advantageous supervision, not meddling nor taking away res-

possibility, but assisting and sheeting that responsibility home, such an example might be found in the existing arrangements under which supplies of provisions, clothing and fuel, are made to the London Workhouses. The want of concerted action among the various Boards of Guardians, and of proper central supervision over the stores procured, have brought about results which it behoves London ratepayers to look into somewhat more carefully than they have yet done. Those results, or some of them—of a system which yet goes on—are stated in a Report by the writer of the present article to the President of the Local Government Board, dated July, 1871, and presented to Parliament on the motion of Mr. Mundella, in July last. On page 4 of that Report, the evils of local action without concert was pointed out with special reference to the cost of the goods bought. "Reference to the tables will show price and quality, and will also exhibit considerable differences in the prices of the same articles within the same area, and may, perhaps, be held to point to the advisability of some concerted or common action on the part of the Guardians. The inference from contrast is, either that the Board at one extreme of the comparison pays too much, or that the Board at the other pole pays too little; in the one case getting, it might be supposed, too good a thing, in the other one not good enough; whilst between the two extremes there lies a varying set of prices not at all explained by considerations of carriage or neighbourhood, or ordinary conditions of trade.

"As examples of this, I beg to point out that the price ranges, of mutton, from 5s. 8d. and 7s. to 9s. 11d.; beef, from 7s. to 9s. 4d.; legs and slices of beef, from 2s. 6d. to 5s. 5d.; suet, from 5s. 3d. to 9s. 4d. The price of flour, ranges from 37s. 6d. per sack to 46s. 3d. The price of milk ranges from 7½d. per imperial gallon, at five workhouses, to 1s. per gallon; of potatoes, from 47s. 3d. to 120s. per ton; of bread, when contracted for, from 13s. 3d. to 15s. 4½d. per cwt; of butter, from 86s. to 116s. per cwt.; of sugar, from 24s. to 36s. 6d. per cwt.; of tea, from 1s. 2d. to 2s. per lb.; of household coal, from 14s. to 20s. 3d. per ton."

Some of the evils arising from the absence of proper central supervision are also manifest on turning to the tables appended to the Report. In them are shown the judgments passed by experts upon the quality of the stores found in the London workhouses. Proper central supervision would do away with such variances as appear between the quality of one set of stores and another. It would also be of use in many other ways. Carefully selected Poor Law Inspectors of Stores; men practically acquainted with the kinds of stores supplied, and assuring by their social status, and, if need be, by material guarantees, against corruption or influence on the part of contractors, might from time to time and at uncertain periods visit the workhouses, and examine the stores in

stock by reference to the selected examples. With power to take away samples, they might continuously be doing that which the Commission entrusted to the present writer did once, with an effect which could be but transitory.

Their experience would soon be of the utmost value to Boards of Guardians, containing, as it would, a knowledge of the requirements and practice of each individual Union, and so enable comparisons to be made with a view to greater uniformity of quality and price. The inspectors' certificate, rendered periodically to the Poor Law Board, that they had examined and caused to be examined the stores at particular places, and had found them agreeable to sample, or otherwise, would be an assurance both to guardians and ratepayers, that their interests in the matter of supplies were duly looked after.

The inspectors might occasionally be present at the receipt of stores, and it might be an instruction to them to master generally the whole business connected with this important branch of duty, so that they might be able at any moment to advise the Poor Law Commissioners, not only as regards quality and price, but the mode of supply and receipt also.

They would also be arbiters in any complaints against stores, whether as between inmates and masters, or masters and contractors.

The gross expenditure in the metropolitan workhouses upon provisions and bedding is, according to the Workhouse Returns, £358,000 a year. This large sum would probably be reduced by a large per-centage, if watched by inspectors who would work at the same time for guardians, ratepayers, and inmates, but not for the contractors.

Short of establishing a central dépôt, from which, as from a general storehouse, supplies might radiate to all the workhouses in London, it would seem that the common interest would be greatly furthered by combining groups, which now act apart, in Unions for supply purposes; and by giving the metropolis four or five centres of supply under united management, and subject to the inspections already suggested, instead of continuing with twenty-nine centres, as at present.

What is true of one supply department is true also of the others, and true efficiency and economy would seem to point to the establishment, for all spending departments of State, of the principle of local action, taken in concert, not in rivalry; and of an intelligent central supervision, neither meddling nor muddling, assisting local centres where necessary, without interfering with them or lessening their responsibility, and acting as the eye rather than as the hand, of the supremely responsible Minister.

Some means should also be devised for renewing, from time to time, the strength which would come from the establishment of a good general system. The means of comparison of procedure in

the several spending departments—of ascertaining, that is, how far each is carrying out the general orders, and what new processes of supply special wants had engendered—would be afforded by the annual accounts of stewardship which it is suggested should be required. But whilst this comparison remains voluntary, and no concerted official action is taken upon it, the result will be that, to a large extent, the *status quo* will be maintained, even after the maintenance of it may be inconvenient, or even mischievous. New exigencies may require new methods of handling; “the old order changeth,” often imperceptibly, and the new, to which it giveth place, may, unless means be taken to prevent it, find itself in presence of a stiffened, stereotyped system wholly unsuited to the altered conditions of things. Would it not be well to require periodical meetings of the permanent heads of all spending departments to consider and discuss the necessity or otherwise for modifying the general regulations? Such a standing committee of men, actually engaged in the practical work of buying and selling on behalf of the public, would be able to concentrate an amount of experience and suggestive knowledge, which now is diffused and dissipated, or confined to particular grooves. Their summons should be *ad deliberandum et advisandum*, and the result of their meetings should take the shape of Reports to the Treasury. The principle laid down in this article, that sub-divisions or separate establishments of one department of State, should act in concert under central supervision and guidance, would apply also to the sub-divisions or separate establishments of the State itself. Free to act, each individually, in the way that, for the occasion, seems best for the public service, central (Treasury) supervision would be brought to bear minutely upon each act, and responsibility would be brought home to each particular actor. At the same time, the value of co-operation and of a perpetual clubbing together of suggestion and experience would be secured, heads of departments would resemble the partners in a firm, but with more individual freedom. The result could hardly fail to be beneficial to the public; and the House of Commons, which year by year governs more and more, would be able to control and to utilise the result for the common good, in a way that is impossible at present.

The subject of the Purchase and Administration of the Public Stores is one far too large to be adequately dealt with by any one person. It cannot be properly and authoritatively handled but by some such committee as was suggested by the article in *Macmillan*. But it is hoped that the suggestions made in this and a former article may form acceptable contributions towards the programmes of such a committee. With this desire and with this hope they are offered to the public, who are so deeply interested in the right settlement of the matter.

THE PURCHASE OF HORSES IN THE AUSTRIAN ARMY.

The following observations on the Purchase of Remount-horses in the Austro-Hungarian Army were written in the Spring of the year 1871, by an Austrian officer of great experience—Colonel Baron Oeyenhausen—and subsequently published in the *Organ* of the Vienna Military Society. In some respects they are so pertinent to our own deficiencies that the translator has been induced to place them, in a condensed form, before the readers of *Colburn's United Service Magazine*, as a sequel to the articles on "Prussian Army-horses," and "Horse-breeding in Prussia," which have already appeared.

Baron Oeyenhausen commences by observing that the purchase of Army-horses, and the Training and Improving of the animals so purchased into serviceable military cattle, are now-a-days most important considerations in any estimate of the offensive and defensive capabilities of States. All military arrangements and observances should have one ultimate aim—readiness for war. Peace should be a preparation for war, and it is from this standpoint, like any other matter of tactical detail, that the Army-remount question must be reviewed.

The war of 1870-71 demonstrated the paramount importance of a state of well-considered preparedness—not less forcibly did it illustrate the value, in the present day, of a numerous and active cavalry in the field. The unexpected mobilization of a portion of the Austro-Hungarian Army in the summer of 1870 conclusively proved the practical inutility of many existing regulations in respect of horse-purchase. Moreover, in view of the rapidity of mobilization exhibited by the Prussian Army, the practice now obtaining in the Austrian service of purchasing the bulk of the remounts through the agency of a single *Assent-Committee*, appears inadequate to secure either the number of horses or the rapidity of action which would unquestionably be necessary in the event of a future war. Hence the necessity for a reconsideration of the whole subject.

The horses of the Austro-Hungarian Army may be classed under three heads:—1. Troop-horses for the cavalry; 2. Draught-horses for the artillery and waggon-train; 3. Saddle-horses for officers and others, whose duties in the field require them to be mounted. (There is a considerable difference between the stamp of horse required for artillery-draught and that suited for waggon-train purposes, which, it is observed, is not sufficiently attended to.

The horses are obtained—1. From dealers, under contract, or otherwise; 2. Direct from individual owners, without the intervention of the dealer. They are purchased—1. Through the Assent-Commission; 2. Regimentally.

The Baron then discusses at some length the comparative merits of these several methods of purchase, shewing that under existing circumstances—more especially when it is necessary to obtain a large number of horses at short notice—the assistance of the contract-dealer is absolutely necessary. Country horse-owners and dealers have little knowledge of the stamp of horses required for army purposes, or of the prices given for them, and this want of knowledge deters them from taking any trouble in bringing forward their horses, especially when they reside at a distance from the station of the Assent-Commission. Of this ignorance and unwillingness he adduces a couple of illustrations drawn from his own experience.

During the Crimean war, in 1854, the Baron was at Hatschein near Olmutz, on a Remount-Commission. Many horses were brought in, some from considerable distances. In one instance, a man came in this way with a pair in double harness, which he offered for sale. The horses were examined, and he was told that one was no good, the other would do for a waggon-train remount, the price of which was 120 gulden (£12). He immediately rejoined that he had seen an official intimation that the remount price was 220 gulden (£22), that being the figure allowed for cuirassier-remounts. The qualifications required in the latter case were explained to him at some length; and, eventually, with evident misgivings and disappointment, he took back his horses and went his way. On another occasion, at a different station, the commandant of a stud-dépôt took the trouble to send round a very trustworthy and experienced non-commissioned officer of the stud-department to inform all horse-breeders and owners of an intended visit of a Remount-Committee to the neighbourhood, and to give them every information respecting the qualifications required in the horses, and the prices that would be given, at the same time requesting them to bring all their disposable horses to a given place on an appointed day. As a further inducement, it was notified that the bonus then allowed to individual contractors, i.e., 10 per cent. on the gross value for twenty-five horses approved in one day, and 15 per cent. for fifty horses, would be handed over to the parochial authorities of each parish sending up approved horses in such numbers. In spite of these inducements, on the day appointed not a single horse made its appearance at the rendezvous. This occurred in one of the richest horse-breeding districts in the Empire.

Now the dealer, who is probably known to many of the breeders and owners in the way of business, and who, either personally or by means of his agents, can look them up at their homes and make a bid for any suitable animal is necessarily in a fairer way to get his wants supplied, and to save both money and time. Again, the President of a Remount-Committee, being personally responsible for the serviceability of the horses passed, naturally prefers to treat

with a dealer of known position and character, than to enter into engagements with parties of unknown antecedents.

Persons are always to be found who assert that a sufficient number of horses can be purchased directly from the breeders, without the intervention of the dealer, and who are ready enough—being jealous, perhaps, of the dealers' profits—to hint at collusion between the latter, most of whom are Jews—and the officers of the Remount Staff.

But in view of the ignorance of military matters existing amongst country breeders, and the utter want of reliable information respecting the numbers and description of this species of stock in different parts of the Empire, the assistance of the contractor must be regarded as indispensable.

Baron Oeyenhausen objects, however, to the establishment of a monopoly, *i.e.* to the *Assent-Committee* being stationary, and confining its transactions to a single individual or firm. Where large numbers of horses are required at short notice, the contractor-in-chief must necessarily have recourse to the assistance of sub-contractors, and as these look to make their expenses and a certain profit out of the transaction, the inducements to smaller dealers and to individual breeders, and the gain to the Service, must necessarily be smaller than they would be were the sellers brought into more immediate contact with the purchasers. It would be absurd, he says, to deny that the late Lieut. Field Marshal Baron Czeh was eminently successful in his arrangements with the firm of Blum and Brauchfeld, at Pesth. All that need be urged, in respect of the point is, that this exceptional success should not be counted on certain at all times and under every variety of circumstances.

Briefly then, the Baron would give greater latitude to the Presidents of the *Assent-Committee*. He would have the Committee moveable in place of stationary as at present; and have greater scope given to its transactions generally, so that its efforts might be extended over a wider surface—additional committees being formed for the purpose, if necessary. Lastly, he would give a fuller development to the system of purchasing horses *regimentally*, thereby bringing the horse-breeding community into more direct contact with the military authorities.

With a view to obtaining a wider selection of remounts, and to the better encouragement of a breed of horses suited for army-purposes, he suggests that, whenever practicable, care should be taken to give timely intimation to the public of the intended purchase.

Autumn, *i.e.* from the middle of October until well into December, is unquestionably the best season for the purchase of remounts. Agricultural operations are then over for the year, and many persons who have not kept or work for their horses during the winter months are willing enough to let them go. In spring, business recommences, and not until the return of autumn are there many horses again in the market. Casting takes place in the Army twice

in the course of the year, the larger number being cast according to regulation, in autumn, and the rest in spring. Evidently, it would be possible, under ordinary circumstances, let us say, for example in Bohemia, to give at least two or three months prospective notice of the number of remounts likely to be required for the regiments of cavalry and artillery distributed throughout that country, so that every private breeder and horse-owner might have fair warning, and be at liberty to make his own arrangements accordingly. The advertisements should set forth distinctly the qualifications expected in respect of height, size, age, soundness, &c., and also the price to be given for each description of horse, and the times and places of the intended purchase.

More systematic arrangements and less hurry would, in this way, doubtless conduce to more satisfactory results. He continues:—The system of horsing the Army adopted in peace-time must necessarily exert a very important influence over the readiness of the latter to take the field. The regulations prescribe that the larger number of horses shall be cast in autumn, but the recruit-horses also come in in the autumn. In practice, therefore, the greater number of horses are not cast in the autumn, but later, so as to avoid an over-reduction of the strength. But the breaking-in of the recruit-horses continues after the others have been cast, and several months elapse before they are ready to take their places in the ranks. Thus, there is constantly a deficiency existing in the effective strength, which does not appear in the returns, as the horses, when once taken on, are reckoned as part of the establishment. Clearly, the full complement of horses cannot therefore be counted on as ready to take the field at any given moment, and, all that has been said to the contrary, notwithstanding, it is a fallacy to plead in extenuation that we, in Austria, have less need of cavalry than any other of the great European powers. Equally delusive is it to suppose that good, sound, well-broken saddle-horses can be procured in any number by the Assent-Commissioners, when required, either for making up the war establishment of the cavalry and artillery, or for mounting the staff and departmental officials. The mobilisation of the summer of 1870 proved any such hope to be fallacious.

The regulations now prescribe that remounts shall not be under five years nor over eight years at the time of purchase. Difficulties, in the way of purchase, are thus increased. Most of the horses come into the Service from the hands of small proprietors, who combine the pursuits of breeding and farming. The management of the young stock is seldom conducted upon any rational principle; most farmers considering young horses fit for any sort of rough work, even before the completion of their third year. Hence it is, the Baron says, that foreign purchasers buying up young horses for Army-purposes in the Austrian markets have a better pick amongst the three and four year olds, than we on the spot can get, with an

equal degree of soundness, amongst the five year old and over stock.

Again, the small peace-establishment of the cavalry renders it very desirable that the remounts should be purchased in good working condition. This leads to the consideration of the treatment of recruit-horses.

The Austrian regulations regarding the training of Army-horses contain many excellent and practical rules. But, at best, the operation is a work of time. The Army forage ration is limited; it is restricted to oats and hay; admixtures of salt, chopped straw, and the like rarely find their way into it; each horse has to content himself with his unvarying daily portion. The diet is more concentrated and less filling than the green food to which the majority of farm-horses are accustomed. Horses, too, which have been used to slow work, are kept in quicker movement for longer periods and in a more constrained position of the head and neck. Were it only necessary to accustom the young horse to carry his rider and to regulate his paces, a few hours a day might suffice, but the whole tenour of the animal's existence has to be changed.

A certain length of time is therefore necessary to enable every horse to become efficient for duty; and in estimating the cost of remounts, we are bound in fairness to include the cost of keep of the animal during this preliminary period as a part of the prime cost. "The first year counts to the horse, *not* to the Service," was the dictum of an experienced judge.

To previous mismanagement may no doubt be referred many of the defects observable in remount-horses, the eradicability of which may have been misjudged by the Remount Commissioners. Buyer and seller, too, may regard the matter in different lights, although both must be aware that a thoroughly bad horse will never make a good one. Acquired peculiarities may be modified, but Nature cannot be changed. Still with time, patience, and common sense, the most unpromising material may oftentimes be improved. For these reasons, the Baron considers that in peace-time the remounts should be kept for three or four months with their regiments before the horses they are designed to replace are cast. This period might be reduced by sending the newly-purchased horses for some weeks or even months to one of the stud depôts, where they could be gradually accustomed to new diet, &c., before they are told off to their regiments. Without being understood to approve of the thoroughly bad practice of training recruits on horses past work, the Baron thinks that sufficient work might be found for their old horses to cover the cost of their keep during the few extra months they are thus retained. There would, however, still be a deficiency in the field strength.

The present extremely short period of service in the ranks gives the men few opportunities, if any, of earning "riding-money" (*reit-douceurs*.) It would, therefore, appear that the money formerly

devoted to this purpose might be advantageously applied to bettering the condition of the remount-horses. In some countries, as in Prussia, and it is believed in Russia also, it is customary to purchase the remounts as three-year olds, and to keep them twelve-months or more at a remount depôt before they are sent into the riding-school. This arrangement is intended to secure for the young horses a year's exemption from the laborious work to which they have generally been subjected at the hands of their previous owners, and by careful handling and judicious treatment in other ways to give them good mouths and make them in all respects eligible military cattle. So long as they are at the depôts, they are not counted on the strength of their regiments, and the whole period from the day of purchase until they are taken on the regimental establishment, is generally about 18 months. We often hear it said that the old troopers are better than the younger horses, and many people appear to think that in buying our object should be, if possible, to get horses of a like age, but they forget the obvious fact that the older the horse the less time he is likely to remain fit for duty.

The dominant prevailing characteristic of the present day is speed; everything is done at high-pressure to ensure a result within the shortest possible time. This peculiarity pervades the whole of the military art, and reacts even upon the horses. Tactical results are far more dependent than of yore on the condition of the army cattle. The short service at present in vogue, and the want of experienced non-commissioned officers, render the rider now-a-days dependent on his horse rather than the horse upon his rider, as in the days when the latter had the prospect of "riding-money" steadily before his eyes.

Formerly it was thought meritorious to have a number of old troop-horses in the ranks. Many such might be seen, each of whom had won "riding-money" for several masters, who had successively bestriden him for six to nine years each or more. People spoke of the wonderful longevity of the army horse, and during a long period of peace the fact appeared to have been forgotten that most of these good old horses were utterly unfitted for the duties of a campaign.

Baron Oeyenhausen then proceeds to discuss the influence of price on the supply and quality of army-remounts. Hitherto the remount price has been determined by height, irrespectively of other qualifications. A horse carrying his rider at a height above the ground of

14 hands 3 inches fetches	200 florins (£20.)
15 " " 230 " (£23.)	
15 " 1 " 250 " (£25.)	
15 " 2 and upwards	275 " (£27 10s.)

Formerly horses over 15½ hands carried a higher price. The alteration must be deemed a step in the right direction. But the

existing method of horse measurement is eminently unscientific, and the whole system of assessing the value of military horses is unpractical in the highest degree. The subject requires a thorough revision, so that more discretion may be given to the purchaser. Money, which exerts so potent an influence in all mundane affairs, would, no doubt, do much in smoothing away the existing difficulties in the way of a supply of suitable remounts. But, admitting the ignorance of such matters prevailing amongst the agricultural community as stated above, it is still an open question whether the difficulty is due to the inadequacy of the price offered, or to the actual dearth of this description of stock.

The only way in which this question can be set at rest is by the preparation of thoroughly reliable statistical returns. These, the Baron suggests, should be prepared by the War Department acting in concert with the Ministries of Land Defence and Agriculture. The returns should be verified every third year, by personal inspection. They should show the number and description of horses existing in every district at a fixed date, together with as much collateral information as could be collected. Horses under three years old might be shown collectively in their respective districts under the head of "young stock" (*fehlen*.) He thinks that the value of reliable data of this description, not only in a military, but in an agricultural and commercial point of view, could not fail to be speedily appreciated.

The Baron then proceeds to speak of the action of the Assent-Commission in the event of a mobilisation. In 1859, it appears, the purchase of horses for the Austrian army began on the 15th of January, and continued until the end of April. Two and a half months were thus consumed in getting together the required number of horses. In 1866, eight weeks were spent in a like manner. Equally unsatisfactory were the operations in the summer of 1870. In contrast therewith, we have the Prussian armies, in 1870, completely mobilized, and actually on the march, within the space of seventeen days. Assuredly, in the next war the period of preparation will not be reckoned by months or weeks but by days. Now, according to existing arrangements, a space of eight to ten days intervenes between the notice of the intended purchase and the commencement of operations by the Assent-Commissioners, during which period the contractors bring together horses in considerable numbers. Assuming that there is only one *Assent-place*, as at present, and that 18,000 horses have to be procured within six weeks, we find as follows:—Six weeks contain 42 days. Of these, six days at least will be required for the preliminary arrangements; there will, therefore, remain 36 clear days only for the examination and purchase of 18,000 horses. It will thus be necessary to pass 500 horses on every day of the thirty-six. Suppose the Commission to work for eight hours daily; this will leave *one* minute for the examination of

each horse, not counting those rejected. Then the question suggests itself—will 500 *suitable* horses be forthcoming every day? This in itself is sufficient to demonstrate the need of reliable statistics bearing on the subject.

The Assent-Commission, that is to say, its President, is personally responsible for the supply of the requisite number of suitable horses within the appointed time. At the above short notice, he must satisfy himself respecting the heights (by actual measurement), the age, and the soundness in respect of sight, wind, and limb of each individual animal. Obviously it is a moral impossibility thus to guarantee the admission to the service in time of war of none but sound, unblemished animals. And rightly to estimate all the difficulties of the case, we must bear in mind the various tricks for the concealment of defects, which may deceive the eye of the most competent judge. In connection with this point, the reader is referred to what has been said above on the subject of treating with dealers whose antecedents are known.

Even where the number of horses required is smaller than above supposed, so as to give two or three minutes for the examination of each animal, the duty is sufficiently arduous. No one without personal experience can form an idea of the fatigue and exhaustion entailed by weeks of this sort of work. For this reason, and in view of the responsibility laid upon officers thus employed, the Baron thinks that in no case should it be requisite to pass more than 130 to 150 horses in a single day at any single *Assent-place*.

A very important consideration, in the event of a mobilisation, would be the provision, at the public cost, of saddle-horses for the use of staff-officers and others whose duties require them to be mounted in the field. To keep the cavalry force at its proper war strength it must be exempt from liability to find horses for the staff in the field. But the possibility of purchasing the required number of saddle-horses for the purpose at short notice is more than doubtful. As an example in point, of 4,700 horses purchased by Baron Oeyenhausen personally, in 1870, *three* only were fit for this sort of work, and in fair condition.

The existing regulations assume that the supply of the requisite number of horses of this sort, in case of need, may be relied on with certainty. This is but one proof the more that regulations based on insufficient data are certain to involve delusion and disappointment. The evil is a grave one. A raw unbroken animal is not a charger merely because he will take the saddle and suffer himself to be backed. Officers thus mounted are constantly engaged in looking after their horses rather than their duty; the latter suffers in consequence; and in movements on an extended scale serious consequences may be involved thereby.

The best mode of remedy which suggests itself would be for each cavalry regiment on the peace-establishment to keep up permanently a certain number of extra horses for the purpose. Were one horse

only thus kept with each squadron in peace time, we should have, in the event of a mobilisation, a reserve of a certain number of suitable horses immediately available for the service in question, without any diminution of the duty strength. The Baron adds :—

“ Here I may say that in my opinion it would be better in every respect if the pay and allowances of mounted officers were so regulated as to enable them to find their own horses. The present regulations were considerably framed; but it has been proved by time that they are open to objection, and in my opinion the method of mounting the staff of the army should be uniform throughout.”

But the solution of the whole remount question, in the event of a future war, must not be left dependant on the exertions of the Assent-Commissioners alone; many collateral subjects require to be taken into consideration, and to be carefully thought out and provided against, beforehand, in time of peace.

The Baron's views on these matters may briefly be stated as follows : For the solution of the question of Army-remounts, either in peace-time or war, are required, in the first instance, trustworthy returns of the national resources in this description of stock. On data of this sort alone can be framed arrangements for a simultaneous mobilisation at several given points. The question of a general horse-conscription has been mooted, and has given rise to much anxiety amongst horse masters. This is a subject which cannot be settled theoretically. It needs careful and deliberate consideration. In such a case it would probably be desirable to dispense with the intervention of agents and contractors, so as to allow the owners to pocket the remount price without deductions. In this case the sellers would be advantaged rather than otherwise, and it appears probable that in the event of a mobilisation, the greater number of horses required would be forthcoming.

In a future war, each side will infallibly strive for the strategical initiative, and considerations of personal safety alone would induce each individual to contribute his aid to the national defence. Setting aside the chances of any considerable number of horses falling into the enemy's hands, and of the losses during a protracted war, injuriously affecting the breeding of this description of stock in after years, it would certainly appear preferable to draw our supplies of army horses from home.

Without a prompt supply of horses in time of need, the action of an army must be paralysed at an all-important point.

But the subject needs fuller ventilation, and the public generally must be more alive to its importance in a national point of view, ere we can hope for any practical results. Greater mobility must be given to the Assent-Commissioners; the system of regimental purchase must be more fully developed so that a greater number of sellers may be brought forward, and the subject of army horse-supply be more generally known and understood. Were any system of conscription in force, in the event of a future mobilisation it

would be impossible to restrict the duty of procuring remounts to a limited staff, or to a few stations, and equally so to maintain the existing system of responsibility.

For this and the reasons before alleged in treating of recruit-horses, it would be desirable to revert to the system of Cavalry organisation by which the *six* squadrons of each regiment on the peace-establishment furnished *five* full squadrons in the field.

In regard of the artillery, it is no doubt a great drawback when the strength of the peace-establishment does not allow the training and exercise *mounted* of the gun-pointers. But the difficulties in supplying the extra number of horses required in the field are less in the artillery than in the cavalry, inasmuch as the stamp of horse suited for artillery draught can be obtained in greater numbers, and requires less time to accustom him to his new work and mode of life than the cavalry horse.

It is now the rule that in case of a mobilisation the waggon-train squadrons make over to the artillery, as draught cattle, all the horses they have had in use on the peace-establishment. This is a very convenient arrangement for the artillery, but for the waggon-train it implies new cattle unused to their work and to their riders, a complete refitting of all harness, and other inconveniences. Besides there is of course the question whether a sufficient number of horses of the requisite size, *i.e.*, over 15 hands 1 inch can be got in sufficient number when required. Obviously it would be possible to substitute smaller horses for them; but this would necessitate the abandonment of the three-horse team system, on which the organisation of the corps is at present based. Again, if there be any delay or unreadiness on the part of the waggon-train, the whole army will suffer more or less in consequence.

In conclusion, the Baron repeats that for a more complete development of the remount-system, in his opinion, are needed, amongst other things:—

1. Thoroughly reliable official returns of the number, description, &c., of all horses existing in the country; of the fluctuations in the supply and demand for this description of stock; of the imports and exports; of the state of the markets from time to time, &c.

2. A readjustment from time to time of the prices given for remounts.

3. A careful reconsideration of the whole question of remount-purchase, and of the working of the Assent-Committee, and of the system of regimental purchase.

4. A judicious selection of officers for the post of president of the Assent-Committee. These officers should not be bound down to the letter, but should be free to follow out the spirit of the regulations. They should bring all their energies, experience, and goodwill to bear upon their duties and the furtherance of the objects enumerated under the first three of the above heads.

5. A more rational mode of treatment for recruit-horses in respect

of employment of time, mode of feeding, handling, and the like.

For peace purposes, an Assent-Commission as at present, aided by regimental purchase, would probably suffice. In war time, a horse inscription, to show the numbers and whereabouts of the cattle available would be necessary; and, if it were desired, to secure the full measure of readiness and mobility in the army, arrangements which, in the event of war, would permit the purchase of remounts to commence on the first day of the mobilisation at as many different points as possible, and which would enable the cavalry and artillery to make up their full *field* strength at once, independently of newly-purchased and imperfectly-trained horses.

SUGGESTED ALTERATION IN THE CADRES OF OFFICERS OF INFANTRY.

BY THE HON. S. C. GLYN.

The great war of 1870-71, marvellous as it undoubtedly was, both in its magnitude and effects, will be even more memorable in the future, from the fact of its being the immediate cause of an almost complete change in the science of war, and the development of tactical formation. The literature derived from and relating to the gigantic struggle all points to this conclusion: German, French, and English writers, differing as they must in the variety of their narratives, reports and deductions all agree on this great point, and clearly manifest that a new era and epoch in martial affairs has commenced, and that like the magnificent wooden ships of the past, some of the modes by which armies passed to victory are so much changed that they now can only occupy a place in history.

It may not be deemed out of place here to recall to the notice of our readers two extracts, which most clearly and graphically point out what may be termed the old and new modes of fighting, with regard to infantry tactics in battle. The first is the well-known description given by Marshal Bugeaud, from personal experience, of the attack of the French upon the English infantry during the Peninsular war. After describing the advance of the French, full of ardour and enthusiasm, checked notwithstanding by the fact that the English retained their fire till the enemy were close upon them, which, as he says, "made them calculate that this fire so long kept back, would soon cause very unpleasant results;" he goes on: "Our ardour cooled, and at this moment of painful suspense the English, steady as a wall, brought their arms to the present. An indescribable impression took possession of a great number of our soldiers, who commenced an unsteady fire. That of the enemy well-concentrated, and with careful aim overwhelmed us as a flash of lightning. Decimated, we recoiled, seeking to regain our equilibrium, and then three formidable hurrahs broke at last the silence

of our adversaries. With the third they were upon us, bearing us down in disorderly retreat; but to our great astonishment they did not pursue their advantage beyond the distance of a hundred metres, then calmly returned to their position, to await a second assault, which, on the arrival of reinforcements, we seldom failed to attempt, and too often with the same want of success, and receiving fresh losses." (L'Armée Française, by Gén. Trochu).

As the antithesis to this description, an extract may be taken from "Tactical Deductions from the war of 1870-71," by Captain von Boguslawski, translated by Colonel Lumley Graham. "To sum up the characteristic points of the infantry battle tactics of 1870-71, it will be necessary, in the first place, to mention what we did not see, that is, no volleys in battle; no, or at least very few attacks by troops in close order; if a compact body ever did attack, it was always a small one, never amounting to a battalion column. But we did see great deployments of skirmishers on both sides, long-continued, gradually advancing musketry fights, often rolling backwards and forwards, at last the flank of one party turned, or else one side exhausted, the other side pressing on in consequence; or a rush of dense clouds of skirmishers endeavouring, at any price, to dislodge their opponents, not forgetful that in case of failure or retreat they are dead men. On both sides great dispersion, intermingling of troops, particularly in broken ground; hence the control of the leaders diminished."

After a careful study of all that has been written on this subject since the war, what man is there bold enough to assert that the tactics employed by Wellington, viz., the line remaining until their foes were close upon them, then with a volley and a cheer hurling them into confusion, or the grand advance of lines deployed, as at the Alma, can possibly be put into execution under the changed circumstances of war. Any one making such an assertion must support it by facts, and throughout the war no instance of a successful attack in column or in line can be brought forward, whereas the impossibility is indubitably shown by an instance mentioned by Captain Brackenbury, in a discussion last June, at the Royal United Service Institution, which occurred at the battle of Rezonville, Aug. 16th, 1870.

"On the 16th of August, about one o'clock, the Commander of the 6th Corps (Marshal Canrobert) returning from his right, which occupied St. Marcel towards his left, which rested on the Verdun road, some hundred metres in front of Rezonville, saw from the other side of the road a movement of retreat on the part of the 2nd Corps, and a movement of attack by the Prussian Infantry on the hamlet of Flavigny. He immediately directed the 94th regiment of the line to move on Flavigny; then as much to sustain the morale of his men in presence of the retreat of the neighbouring troops as to aid in arresting the movement of the Prussians, he led forward two battalions of the 93rd, *deployed*, preceded by skirmishers

at three or four hundred metres in front. Masked until this moment by a dip in the ground, these two battalions were scarcely out of cover when they became the mark for such an artillery fire that they could, with difficulty, pass over a few hundred metres, and wavered (*fléchirent*) under the fire that was crushing them, and in a few minutes many hundreds of men were placed *hors de combat*. This fire proceeded from the great battery established by the enemy in rear and to the south of Vionville, that is to say, at more than 3,000 metres from us, which had been concentrated on these battalions when their advance was discovered. The Prussian infantry was, at this time, 2,000 metres from us, and their fire caused us no harm."

If then a line of infantry can be almost annihilated, certainly so much thrown into confusion as to be rendered comparatively useless by the fire of artillery alone at 3,000 metres, how could any line advance to the attack under the combined fire of artillery and breech-loaders, as would be the case should the tactics employed at the Alma be again put into practice. All but the most prejudiced adherents of the old order of things must accept this fact, and all must also accept as established the system advocated by writers and practical soldiers of all armies, that the attack of the future must be made by small parties of men, under the guidance of officers trained thoroughly to work together, fully cognisant of the advantages of cover, and also knowing when to seize upon any advantage that may suddenly present itself amidst the din and confusion of battle. That this is the view taken by our own military authorities is evident, from the experimental system now authorized and in force at Aldershot, and it may be safely asserted that under the guidance and advice of those who are called upon to lead and direct in such matters, and to concert the necessary changes, England will not be left behind in the development of this new system of tactics. When once any change is recognised as necessary, there is perhaps, no other nation that goes into it so thoroughly as we do; but the difficulty is always to bring the absolute necessity of such a change into prominence before those whose duty it would be to carry it out. And it must be borne in mind that a tactical change of this description is comparatively easy of execution, amounting, in fact—the necessary details having been arranged—to the simple promulgation of certain orders, or even at the utmost to the publishing of a new drill-book, and though such a contingency would be undoubtedly voted a nuisance by the entire army, still its absolute necessity could be denied by no one. But to make this change thorough and complete, there must be—in addition to a reproduction or renovation of tactics, also a considerable alteration in organization, because, with regard to the present tactical units of battalions and companies, the former are too large, and the latter too small to prove useful under any form of tactics adapted to the new system.

It is to this latter consideration, viz., change in organization that these remarks chiefly refer, because, undoubtedly, this is the most difficult matter of the two to be accepted; since, although there have been numerous changes during past years in our system of tactics and drill, the organization of the Army, with reference to the constructive detail of regiments and battalions, has remained comparatively unchanged for many years.

Now any practical soldier must allow that if the tactics of infantry for attack *in toto*, and for defence in a considerable degree, are for the future mainly, if not altogether entirely to be limited to skirmishing or fighting in loose order, the existing form of the cadres of officers in our Army is not the best adapted to its development. Supposing a whole battalion to be thrown into skirmishing order, the commanding officer does and cannot help losing much of his control and individual action, both for guidance and example; and, as actually happens, the line of skirmishers, if composed of a portion of a battalion, is commanded by one of the majors; but it is impossible for one officer, even when mounted, to effectually direct a long extended line; besides, he is not sufficiently *en rapport* with the supports and reserves, and consequently there is a want of cohesion and mutual understanding among the different parts of the battalion, which must cause a loss of power in attack, and may lead to disastrous consequences.

Lieutenant Maurice, in his able Essay, has pointed out the mode by which attacks in loose order can be best carried out, viz., by a small portion of the tactical unit extended as skirmishers, properly supported by another portion in a more compact order, the men composing the unit having been accustomed to live and work together, and all being under the control and guidance of one officer, who knows them, and who they know and have complete confidence in: the very fact of the men being accustomed to the tones of the voice of the officer from whom they receive orders in the crisis of combat, is a small but by no means an unimportant consideration.

There is no reason why we must accept in its entirety the Prussian system as to the formation of the battalion, but is it not perfectly practicable so to alter and modify our own arrangements as to enable us to adopt the new system of infantry tactics without making too great a change, which is always difficult to introduce and bring to perfection, and which, with the Conservative tendency so prevalent in the Army, would be perhaps very unpopular, and be regarded, at any rate at first, with distrust and dissatisfaction.

Now the double company, at present so much used for the purposes of parade movements, points at once to a solution of this question. But the double company, as at present employed, is rather anomalous, because the two companies that temporarily work together have really no relation to each other, come together by chance, and sometimes must receive the executive words of command from the junior captain; consequently, if double companies should

be employed to work together in skirmishing order, whether both extended or one extended and the other in support, they would not know who to look to for the necessary directions. Every officer knows how often skirmishers and supports even on an ordinary field-day work inharmoniously together, because the officers in command do not, and perhaps will not, see matters in the same light, and how greatly this difficulty would be increased in the case of actual combat.

Would it not then be advisable and perfectly feasible to introduce the system of double companies as the *regular* formation of the establishment of the battalion, thereby reducing the number to four companies, with the head-quarters and one at the *depôt*, the term double company being, of course, discontinued, and thus we arrive at what may be termed the most important part of these suggestions.

It cannot be denied that the promotion of all first captains in the Engineers and Artillery (right and proper as no doubt this promotion was), has acted rather unfairly towards the senior captains in the rest of the army, and has caused a great deal of dissatisfaction, which is by no means altogether groundless. If the companies of a battalion were reduced, or rather amalgamated, from ten to five, the command of these larger units naturally devolving upon the senior captains, should not these officers, with the increased responsibility and charge laid upon them, receive also a corresponding increase of rank in the same way as their brethren in the other corps; besides, there is no doubt that if this or some similar measure should be adopted, the services of one, if not both of the majors, now borne on the strength of al. battalions, might be dispensed with, and thus economy would be studied (always a great merit in these days), as the cadres of the senior officers in a battalion would then consist of one lieutenant-colonel, five majors, and five captains, instead of, as at present, three field-officers and ten captains. The same system might be pursued with regard to the cavalry, majors commanding squadrons. The number of field-officers might seem to be excessive, but it is not so when compared with the number now actually belonging to a brigade of garrison artillery.

There is another important matter in which we may safely take example from the Prussian system, viz., that the teaching and training of the recruits and privates should be conducted by the officers and non-commissioned officers of the company, and not as it is with us, by the battalion staff. There can be little doubt that much of the success of the Prussian arms is due to the fact that working as they do chiefly by companies when in actual contact with the enemy, the officers know thoroughly how to direct their men, and the men look with complete confidence to their officers, simply from the fact that they have always been thrown together, whether off or on parade, that the necessary training and instruction has been imparted to the men under the personal direction of, and often actually by,

the company officers, and thus they are able, when the time of trial arrives, to put thoroughly into practice those lessons which they have studied together during the period of previous training in the camp or barrack.

The article entitled "The German Troops in France," in the January number of this Magazine, clearly points out the value of this system, and being derived from a French source it is all the more important.

No doubt a suggestion such as that hazarded above, appears at first sight somewhat bold and presumptuous, but these are days of change in all the varied walks and courses of life, and is it to be supposed that the army can be exempt from them; and surely when so great an alteration as the doing away with purchase can be successfully and unhesitatingly introduced, making really but comparatively little difference in the feelings, opinions, and habits of the army, a slight change of detail in organisation is a matter of little consequence. The necessity of an alteration in the system of tactics is generally admitted, and if for the development of this change, some slight modifying of organisation is also necessary, no hesitation should be shown in its adoption.

To sum up in conclusion some of the advantages which appear incidental to the above proposal, the following may be enumerated: that it will do away with at once and for ever a feeling of discontent and dissatisfaction now prevalent among a most deserving class of officers, and which is likely to increase instead of diminishing: that it will place officers of the various branches of the army of about the same standing on a similar footing of rank (a matter which, while our army is continually in motion, is of very considerable importance in the case of changing and taking up new quarters, embarkation in transports, &c.); and lastly, and by far the most important of all, it would assist most materially towards the development of the new system of tactical formation, without following too closely the Prussian model, and also without the introduction of any too great radical change in our own well-established arrangements.

The accompanying table points out the construction of a battalion organised under the plan suggested in these remarks:—

DETAIL OF A BATTALION OF FOUR COMPANIES.

Battalion Staff.

- 1 Lieutenant-Colonel.
- 1 Captain (Adjutant and Superintending Rifle Instruction, Correspondence, &c.)
- 1 Captain (in charge of pay, subsistence, stores, clothing, &c.)
- 1 Surgeon.
- 1 Assistant-Surgeon.

First-Class Staff Sergeants.

1. Regimental Sergeant-Major.
2. " Schoolmaster.
3. " Quarter-Master Sergeant.
4. " Pay Sergeant.
5. " Orderly-Room Clerk.
6. " Hospital Sergeant.
7. " Sergeant for Rifle Instruction.
8. " Drum or Bugle Major.

Second Class Staff Sergeants.

1. Armourer Sergeant.
2. Sergeant Cook.
3. Band Sergeant.
4. Gymnasium Sergeant.
5. Pioneer Sergeant.
6. Provost or Police Sergeant.
7. Master Tailor.
8. Canteen Sergeant.

Detail of Company.

- 1 Major.
- 1 Captain.
- 2 Lieutenants.
- 1 Sub-Lieutenant.
- 1 Company Sergeant-Major.
- 1 " Pay Sergeant.
- 4 " Sergeants.
- 8 Corporals.
- 4 Buglers.
- 140 Privates, (peace establishment.)

Recapitulation.

	Officers.	Sergts.	Corps.	Buglers.	Privates.
Battalion Staff . . .	5	16	—	—	—
Four Companies . . .	20	24	32	16	560
	—	—	—	—	—
	25	40	32	16	560
Total of all ranks . . .				673	

Remarks.

By the appointment of second-class staff sergeants, the cadres of the companies would be left more intact than they are at present.

The companies becoming under this suggested plan better defined and larger units than at present, a large proportion of the duties now thrown upon the battalion staff would be transferred to the

officers and non-commissioned officers of companies; the former would therefore exercise more of a general charge and superintendence of the whole battalion, without having to go so much into detail and minutiae as under the present system.

CAMPS OF EXERCISE IN INDIA.

At no time in our history has the subject of military education, by means of camps of instruction, been so much attended to as at present. "There were heroes before Agammemnon," and there were camps of exercise previous to the Autumn Manœuvres of 1871, but they were not only of smaller dimensions, but both theoretically and practically of much less utility. The gathering at Chobham in 1853 could no more be compared to the mock campaign which was carried out on and around Salisbury Plain last year, than the Brown Bess of that period could be compared to the Martini-Henry rifle of the present day; and what astonishes us most now is—not that we have attained such great proficiency in the manufacture of guns and projectiles, but that our forefathers should ever have won battles with such weapons as they had for use. The improvement, however, has not been made without some trouble; for as the change could not well be effected without corresponding cost, neither was the outlay permitted without opposition from those who believe that the millenium is so near that arbitration until then will settle all disputes. Fortunately, the majority of sensible people are not so sanguine as the peace-at-any-price-party, consequently, the yearly campaign for practical manœuvres, on a large scale, will continue to give an increased amount of military knowledge to our soldiers, as well as additional satisfaction to the tax-payers.

India, in this march of progress, as might be expected, has not lagged far behind, although, for obvious reasons, it has been obliged follow the home example, instead of more properly leading it. In 1853, as now, the Poonah camp was not formed until after the rainy season, when, however, the troops on the banks of the Moula-Mouta, under Lord Frederick Fitzclarence, made a much more effectual display than was done at Chobham by those under Lord Seaton. At home it was merely a military parade, on a larger scale than common, and for all the good it did our soldiers, might as well have been gone through by the side of the Serpentine as Virginia Water. At Poonah most of the troops took the field, as if on service, having their front and flanks properly protected by outposts, and although the enemy was only represented by a very thin line of skirmishers, under Major Harvey, yet the movements were all gone through in a manner which showed that every one engaged entered heartily into the matter. The irregular cavalry under Major

Tapp, particularly distinguished themselves by the efficient manner in which they performed their duties.

Now, nearly twenty years afterwards, another camp of instruction is formed on the same ground, but what changes have taken place in the interval. "John Company" was then supreme, the Queen's troops being, as it were, but lodgers in the land. Officers of the English Army commanded on this side of the Cape; on the Indian side the Company's officers were in authority. Then came the Mutiny; a revolt principally due to home interference, and the incapacity of rulers appointed from England—its subsequent suppression chiefly by officers of the Indian services; and then, as if the faults had been owing to defects in the valour and administrative abilities of the Company's servants, and all the judgment and ability afterwards displayed had only been exercised by Queen's officers, the Charter was torn up, and all came under imperial rule. We doubt, however, if the new system of things will ever give us such men as Neville Chamberlaine, Robert Sale, Pollock, the Lawrences, Herbert Edwardes, Outram, Jacob, and a score of others equally illustrious, men who were known to be as wise in counsel as they were known to be brave in the field.

Still for all that, India must remain the great practical school for our soldiers, and as a consequence its battles, be they sham or real, important studies for our soldiers. Doubtless, considerable differences exist between soldiering at home and soldiering there; as much, in fact, as can and must exist when climate is perhaps the smallest point in the contrast between them. The natives of the country resemble us, their conquerors, in no particular whatever. They eat different food, they dress in other clothing, they worship strange gods, they cultivate the soil as we would never till it, and yet with nothing in common to bind us to them, they fear we might almost write, reverence, but do not love us. They, in number, are as the sand on the sea-shore, and we are few, and here is the potent reason for periodical assemblages of troops, as it shows them in a way they can best understand; that if we can muster ten thousand men of all arms at a certain town, on the 1st of December, we can do the same on any other day of the year; and as they believe such force could easily defeat any army of theirs four times its strength, the moral power that these gatherings have over the native minds is immense. Unfortunately, however, their value have only been recognized of late years, the expense being always adduced by the home authorities as a sufficient reason for not permitting them to take place. In fact, ever since Lord Combermere was Commander-in-Chief in India, efforts have been made to obtain the sanction of Government for the assembly of a large force annually, for exercise in the north-west provinces, and well would such "demonstrations of power" have paid us. We should neither have had an Indian mutiny or a Sikh war before that to tell of, had Lord Combermere's suggestions been acted upon; but our authorities, who would only

look upon India from a commercial point of view, invariably cold-shouldered all applications for the establishment of camps of exercise, and we have lived to regret it.

The recent display at Poonah cannot be regarded strictly as a camp of instruction, because it is doubtful if the troops would have assembled, had not Lord Northbrook paid the Western presidency a visit. And it being the first time that a representative of Her Majesty had officially recognized the importance of Bombay, as well as of its princes, more than a customary signification was attached to all the proceedings which accompanied the Viceroy's visit. A grand durbar was held, to which the principal chiefs of the Deccan and Kattywar and the Rajah of Cutch were invited, and the town of Bombay held high holidays on the 14th, 15th, and 16th of November last.

Never had such a muster roll of princes before assembled at the Presidency, who, with their vast retinues and extravagant habits almost turned the heads of the native inhabitants. As a consequence, the prices of everything, from house rents to horses, as well as of all kind of provisions, and luxuries rose two hundred per cent. at a bound. Rajahs were plentiful, and as for sirdars, mounted on splendid steeds, dazzling the crowd with their glittering jewels, they were as abundant as cocoa-nuts or mangoes. It was alleged that many of the princes, who had thus come to offer their homage, had never before visited the Presidency town, while several of the Katty-awar chiefs had never even been beyond the boundaries of their own estates. To have brought such men together, leave alone to have introduced them to comparative civilization, will of itself be commendation enough to Lord Northbrook for his graceful innovation on the custom of all his predecessors.

On the 22nd November, Lord Northbrook left Bombay for Poonah, and on the 25th, reviewed the troops, who mustered 8,000 strong, which were formed up in quarter distance columns facing the grand stand on the racecourse. The cavalry consisted of the 3rd Hussars and the 1st Regiment of Light Cavalry (native), Colonel Vyse of the 3rd Hussars being brigadier, having for his Brigade-Major Captain Luck, 15th Hussars. The artillery, which was composed of batteries F. 9, F. 18, and E. 18, was commanded by Colonel Leaby, who had Captain Battiscombe for his Brigade-Major. The infantry division was composed of three brigades, two Native and one European, as follows: 1st Brigade H.M. 65th; 83rd and 68th Foot; Colonel Kirby, of the 68th, commanding with Captain Jones, of the Staff Corps, for his Brigade-Major. 2nd Brigade: 1st and 2nd Grenadiers, N.I., and 8th N.I. Colonel Barrow, 2nd G.N.I., commanding; and having Major Fellowes, 8th N.I., for his Brigade-Major. 3rd Brigade: 11th, 14th, and 28th N.I., and 4th Rifles, N.I.; Colonel Wood, of the last-named regiment, being brigadier, with Major Wardrop, of the Staff Corps, for his Brigade-Major.

It will scarcely be credited that to get together these 8,000 men, it was necessary to draw upon not only Kirkee, the neighbouring artillery station to Poonah, but also upon Nugger, Baroda, Sattara, and other stations, and when we reflect that of the number assembled not one-fourth were Europeans, we may well wonder how so large an Empire is ruled and kept in subjection by so few. It proves, certainly, how much the great soldiers of the past did to give such a name, and transmit such a prestige to their descendants, that less Englishmen are required to garrison a country thousands of miles away from, and four times the extent of the United Kingdom, than is needed to protect Dublin; but is it not rather risky? may we not draw upon the memory of our ancestors once too often?

The review, however, went off splendidly, commencing with, of course, the "inevitable" march-past. First came the 3rd Hussars, a regiment which had been present in every Indian fight, from Cabool in 1842, to Googerat some years later. The 3rd were followed by the Native Cavalry Corps, the members of which, in their grey jackets and white facings, looked soldiers every inch of them; a fact which their commander, Colonel Loch, seemed well aware of. Next came past the Royal Artillery, who were succeeded by the gallant Pompadours (56th), under Colonel Chitterbuck, the 68th, led by Colonel Kerby and the Royal County Dublins (83rd), under Colonel Brown. Among the Native corps the 1st, 2nd, 4th, and 8th regiments attracted particular notice. The 1st bore "Hyderabad," and "Mangalore" on their colours, while the 2nd Grenadiers, who were raised in 1796, have seen service in Egypt, and in Persia, as well as in India, since they were embodied.

After the "march past," line was formed, facing the Sholapore Road, the cavalry on the right, and the infantry rather behind. Presently, the horsemen dashed out to the front, extending in skirmishing order against a supposed enemy coming from Goorpurrie lines, who, being discovered by the cavalry, these retired to allow the three batteries of artillery to open fire; which was executed in an effective manner. But the enemy was not to be denied, seemingly, as the guns and their supports were driven in behind the infantry, who mostly hid in a long nullah or ravine, rose, and advancing in line, clearly defeated the enemy—and the review was over. The Governor-General, after the spectacle, paid a visit to the Parsee Baronet—Sir Jamsetjee Jeejeeboy, at his residence near the Sungum. When the numerous instances of princely charity which the great Parsee Peabody has bestowed upon Bombay and the Deccan capital, are remembered, we can well imagine the pleasure Lord Northbrook must have felt at seeing one whose name is revered alike by Europeans and Natives, and who has spent more in doing good than the Government has expended upon railways throughout the Empire.

The troops, a portion of which were encamped by the village of

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Hurupsur, turned out for the first fight on the 28th November. As the inutility of manœuvring against an imaginary force is now a recognized fact, we were greatly surprised to find that Sir A. Spencer should have religiously acted upon the exploded idea. We had at the Poonah Camp the same old thing over and over again, just as it was gone through at the Phœnix, in Dublin, or in the Long Valley, Aldershot, year after year. The Commander-in-Chief at Bombay sent out his cavalry, then withdrew them to allow the artillery to fire; then advanced his infantry, covered by skirmishers, afterwards caused his line to retreat, and next advanced it, and so on in the old approved style, which gives officers and men so much food for thought—simply because no one can tell what it is all being done for. On this memorable morning the cavalry were in the saddle, and searching for an enemy, that only existed in the General's brain. "The eyes" of the army, however, kept groping onward, according to orders, followed by the infantry, which in turn was followed by the artillery, and, of course, behind all the customary tag-rag and bobtail of followers, brought up the rear. Had it been in reality, the enemy, from the noise made by all arms on the march, could speedily have discovered not only the intentions of our force, but how it was disposed, and made his movements accordingly, and when "the grey dawn broke," we should have found the foe comfortably pounding away at our columns from the flank, or else our guns captured, and our communications severed.

No difficulty was experienced in taking up positions that had all been told off to the respective commanders twenty-four hours before; in fact, a well-defined tract had been marked out, and even the nullahs made to fit smooth, for working parties of the Quartermaster General's department had put them all right days before. People inclined to be hypercritical might term this "campaigning in night-gowns and slippers," as everything had been all so nicely arranged for the troops to work easily beforehand. It would be difficult for a looker-on, that was cognisant of the care taken, not to feel that the proper scene for such enterprizes should be confined to the theatre, where, on the stage, a field-day or a battle could be much better represented by corps of military dressed dolls, than by 8,000 men advancing from Hurupsur against nothing. We are certain that much more instruction could be given by the former than by the latter method, and as people would pay to look at it, the advantages, from a pecuniary point of view, are apparent.

But, seriously, is it not rather too bad that so much expense should be incurred to practice officers and men at what they can neither derive amusement nor instruction from? On this occasion the cavalry threw out vedettes on ground that had all been previously arranged, and the other arms marched on to positions that had, as it were, been chalked out for them to occupy. There were no horse artillery present, because, with the usual careful forethought our authorities display, the only two batteries belonging to the Presi-

dency having left for England, their successors had yet to arrive. This may be the way of the new school, but we, belonging to the old one, cannot understand how either a regiment or a battery can be relieved from foreign service until another regiment or battery is in India to take the place of the one going home. The same rule applies to regiments as to sentinels, and a sentry cannot leave his post until "regularly relieved." If this were a solitary instance, it would not be so serious a matter, but it is apparently the rule now, for the 20th Hussars have left India several weeks since, while the 10th Hussars, who are under orders to relieve the first-mentioned regiment, do not leave England until the 20th arrive there, and take over their horses from them.*

But if we note and discuss all that was foolish which took place at Poonah, we should draw out this paper to a much greater length than we could hope to have inserted in the pages of the *United Service Magazine*, so we will return to the sham-fighting. By day-break the vedettes could be seen circling right and left, at a trot, and between them and the main body a small body of horsemen were distinguishable coming from the outposts towards the troops formed up in position. These proved to be the Commander-in-Chief and his staff. Presently the cavalry were driven in, firing away in any direction as they galloped to the rear, careless, evidently, whether they hit friend or foe. Two guns that had been placed in advance now came into action, and while they were discoursing "sweet music" to our spectral enemy, the cavalry rallied and made a dash to the front, in a manner that, had all this been real, would have caused a good deal of promotion in the two regiments of horse, besides a demand for recruits to replace those men who had fallen in action. The charge being considered unsuccessful, the defeated horsemen retired gracefully, without the least sign of confusion or haste, towards the main body, which was drawn up behind rising ground, and quite out of sight. Trotting quietly up the slope, they reformed in rear of the centre, while the infantry prepared to attack the approaching enemy. Being concealed from the enemy by rising ground, some commanders would have there awaited the enemy's attack, but Sir A. Spencer playing the bolder instead of the waiting game, threw out the 68th Foot and 4th Rifles N.I. in skirmishing order, and under cover of their fire advanced his whole line. The two batteries of artillery having taken up positions on the flanks, now opened their fire with (supposed) considerable effect. The (suppositious) enemy proving more stubborn, or having more troops than was anticipated, the skirmishers were called in, and the whole line then advanced, volley firing by companies. When we reflect that this advance was made over nearly level ground, the boldness of a manœuvre, which set at defiance the Duke of Cambridge's recent regulations relative to such

* This paper was written previous to the departure of the 10th Hussars for India on the 10th ult.—*Ed. U. S. Mag.*

movements, must be admired by all military men. The centre battery, which had been kept in reserve, now came to the front, and placing its guns between two infantry brigades, opened fire, with so much effect that the fictitious foe began to retire in confusion. At this juncture the cavalry brigade dashed out from the right flank, and wheeling to the left, charged in an oblique direction across the front, putting the enemy entirely to flight.

And so the first day's fight concluded with that good old parade manoeuvre with cavalry, "a charge across the front," that however pretty to look at, at a review, is a movement that has never been known to be put in practice in real warfare, which proves the saying of General Pennefather's that "nothing is so unlike a real battle as a sham one."

After so crushing a defeat, the (supposed) enemy did not attempt to again attack until he had received large reinforcements, of which, however, General Spencer, having timely notice from his spies, threw out his cavalry outposts on the morning of the 30th, as he had done two days previously. To show how exactly the battle of the 30th resembles that we described as having taken place on the 25th, we give the following extract from *The Times of India*:—

"Our cavalry brigade was again advanced, and threw out its vedettes about three miles beyond Hurupsur on the Sholapore road, and at daybreak (on the 30th) discovered the position of the enemy, which, being communicated to the Commander-in-Chief, His Excellency drew up his force in the following order in a well-concealed position about a mile in the rear:—Infantry by brigades in lines of quarter-columns at deploying distance, with a battery of artillery on either flank and one in rear of the centre. The European regiments of each brigade were extended in skirmishing order, and advanced two hundred paces, where they laid down, until the result of the cavalry movements in front was ascertained. For nearly an hour the cavalry, supported by two horse artillery guns, were well engaged, and then, gradually falling back, formed up in rear of the infantry. The skirmishers at once opened fire, while the brigades in rear moved to the front in open column of companies, passed through the skirmishers (who now immediately closed and formed their supports), and at about 100 yards in advance formed line on their leading companies, with a battery on either flank, and opened a deadly fire which seemed to shake the enemy, who began steadily to retire. Our chief was not slow to take advantage of this movement on the part of the enemy, and immediately ordered the three infantry brigades to advance in echelon of battalions from the right. Being now encouraged by the arrival of fresh reinforcements, the enemy once more advanced to the attack, to meet which line was again formed on the leading battalions of brigades, the 4th Rifles taking up a position in skirmishing order immediately in rear of the line. In this formation the action continued for some time, when the line was retired by echelon of battalions from the right of brigades, over the skirmishers of the 4th Rifles, who immediately

opened a heavy fire. The enemy were now seen to fall back in their turn, and our cavalry were brought to the front, and by a succession of well-directed charges, secured for our force a complete success."

Another battle followed on the 2nd December, which the details above given will sufficiently describe, and the fourth, concluding and best engagement, took place on the 4th, when the manœuvres gone through did much to relieve the anxiety which all spectators must have felt when watching the three previous affairs, for really at them neither our troops nor their commanders showed to advantage. However, on this last and interesting occasion the force was divided. Major-General Grant commanding the defending army, and Colonel Barrow, of the 1st N.I., the enemy. General Grant had under him two of the three batteries of artillery, the 3rd Hussars, the 56th and 83rd Foot, and the 2nd, 8th, 11th, and 14th N.I., while his opponent mustered on his side the remaining battery of artillery, the regiment of native cavalry, the 68th Foot, and 1st, 4th, and 28th N.I. From this it will be seen that the defending army was the strongest, and what follows will show that it had in addition the strongest and best position. Between the village of Hurupsur on the right, and the line of railway on the left, there are two deep and nearly impassable nullahs or ravines, running almost due north and south, about 100 yards apart, and well nigh parallel to each other. Three of the native regiments occupied the more advanced one, in skirmishing order, while in the other the 56th, 8th N.I., and 83rd regiments were deployed into line, with a battery of artillery on the rising ground in rear of the right, and another on an eminence in rear of the centre. The 3rd Hussars and a couple of guns were stationed in reserve on the left flank.

Colonel Barrow's vedettes skirted the ridge of hills that run from about a quarter of a mile east of the village of Hurupsur towards the railway, a distance of about two miles. The Light Cavalry (native) formed the outposts, and the remainder of the force was skilfully placed behind the crest of the hill.

From the foregoing it will be perceived that Grant was weakest on his left flank, and although Barrow had at first kept the principal part of his force opposed to his opponent's right, yet when the other showed his strength, Colonel Barrow moved his reserves rapidly to his right flank. The action began by the 2nd Grenadiers (Grant's right regiment) advancing along the outskirts of the village, firing a shot occasionally at Barrow's vedettes. These retired slowly behind the crest of the hill, where the skirmishers of the 1st Grenadiers and Artillery lay concealed. The second still pressing on, attempting to capture Barrow's two guns, were charged by the support of native cavalry, and as they would have been destroyed, ought to have been sent out of action. We need hardly say that they retired as quick as they could from their perilous position. On repulsing the 2nd Grenadiers, Barrow advanced his whole line in echelon of battalions from the right, while his guns played by pairs on the

village, the advanced nullah, and the left of Grant's line. The artillery took up the positions assigned to them in a most creditable manner, and the rapidity with which they opened fire was equally satisfactory. The 1st Grenadiers, which had borne the brunt of the battle as skirmishers, covering the advance, were now relieved by the 4th Rifles. A troop of the 1st Cavalry remained to support the guns on the left, while the remainder of the regiment was moved quickly by the rear to the right flank. The action having now become general, four companies of the 68th and three of the 28th N.I., were thrown out to extend the line of skirmishers of the 4th Rifles, the remaining companies being placed in support. Seeing that Grant's left might be turned, Barrow further prolonged his skirmishing line by sending out the remaining companies of the 28th, and the 1st Grenadiers from the left were moved to the right in support. In this order Barrow's force advanced to storm the strong position of the enemy, which, after a severe contest, they succeeded in seizing with a rush. The 8th and 14th regiments held their ground most pertinaciously, being almost annihilated by the murderous fire from the 68th Light Infantry.

The nullah seized, the next object of attack was a garden on Grant's left, and in which Barrow suspected a trap had been laid for him. Nor was he much mistaken, as in a concealed space, some fifty yards square, between this garden and the railway, two guns were placed, while a company of infantry should have held the garden, and the 3rd Hussars ought to have been posted in rear of all, out of sight. By some mistake these arrangements were not carried out; for on Barrow's force advancing, he found the garden unoccupied, and as for the 3rd Hussars, they were considerably in front of the garden instead of behind it, being at the same time so situated that they became a capital mark for Barrow's artillery, which, pouring an oblique fire into them, soon caused them to beat a hasty retreat. In this manner Grant's last strong position fell into the hands of the enemy, who now brought up his cavalry in advance of his infantry on the right to follow up his successes. With them he charged the left flank battalion of the defending force, which by wheeling back its left company, however, endeavoured to resist the attack, but the movement would not have been a fortunate one had not the 3rd Hussars come up at the moment, and by threatening the flank of the enemy's cavalry, caused it in turn to retire. But the battle was now virtually over, for Barrow, advancing his whole line, Grant was obliged to fall back upon the nullah immediately in rear of the Ghorporrie lines, when the action terminated.

With such a capital finish it is certainly to be regretted that the three previous days should have been so uselessly frittered away doing nothing, for we cannot otherwise describe the proceedings of such antiquated field days as were rehearsed on the 28th and 30th of November and 2nd of December last year. That of the 4th of

December plainly proves that under such leaders as Colonel Barrow, our troops, Europeans as well as natives, will go anywhere and in any manner they are bid. The artillery worked well throughout, and had the ground been left in its natural state, not improved by working parties of the Quartermaster-General's Department, their manœuvring would have been more satisfactory still. To those who can remember how, twenty years since, Colonel Blood used to lead his troop of Horse Artillery over the Poonah field-day ground, at a stretching gallop, from the band-stand, to the ball alley at Ghorpore, and then across towards the church, when every nullah on the way was taken flying, as if the guns behind the horses were made of india-rubber not metal, must feel when they witness such careful riding as is to be seen nowadays, that our artillery in India is not as good as it used to be. Of course now the smartest of the men do not go to the artillery as was the case under the Company's *raj*, and perhaps the men who join do not altogether resemble the harum-scarum fellows of the past. We fancy that more causes than one have led to the change.

That the annual assemblage of large bodies of troops in India must have a beneficial effect, is a question we should imagine it is only possible there can be but one opinion about it, as it ought not only to give our soldiers more practice in field duties, but by showing the natives our state of preparation, make them understand our power. But those camps should be formed with a view to manœuvring on real military principles in the field, and the troops set to work out evolutions of a practical nature, such as the passages of great rivers, with the difficulties incidental to campaigns, which the natural features of all countries must present. The Government should know by this time that money cannot be better laid out than in preparing our soldiers for their real work, for the more efficient an army becomes the less likely is it to be called upon to act. Such practice, however, must differ considerably from that which lately took place at Poonah, where a commander with his brilliant staff kept manœuvring 8,000 men on a never varying principle of advancing and retiring, the attack being as imaginary as the defence, until both officers and men were drove nearly silly.

There are doubtless officers in India as well as at home who prefer ease and comfort to soldiering, and spurn all really practical work. Such men deride the service generally and all who have their profession at heart particularly, striving by sneering remarks to disgust the latter, and by systematic neglect of their duties to disparage all that relates to the former; and being earnest in their work, they unfortunately are permitted to do a deal of injury to a profession they neither elevate nor ornament. It is to be hoped, however, that commanding officers will do their duty strictly with such men, and if they cannot rid their regiments of them, at least do the next best thing—stop their promotion.

Our forces in India should be trained but for one object, instant action, and all the energies of officers, &c., should be directed to the means to insure this, for in any revolt it is of far more importance to strike suddenly than to strike strong, and twenty-four hours start or delay may at any time mean success or its reverse. The motto therefore should be throughout all the Presidencies and departments of India, "Ready, aye ready," and then we shall have nothing to fear.

ARTILLERY.*

PART IV.

Austrian, Russian, Dutch, Belgian, Swedish, Norwegian, Danish, Italian, and Swiss Artillery—Comparative estimate of the Artillery of the different Powers—Results of the Mitrailleuse.

Up to the year 1859, Austria disregarded the efforts of other nations in the improvement of artillery. She paid dearly for this neglect. Her defeat in the Italian War was partly due to the inferiority of her artillery.

Immediately after the war, the Austrians tried a gun fashioned after one of the French cannons taken at Magenta, but without success. Soon after, however, they adopted rifled guns of the Lenk system, with gun-cotton instead of gunpowder.

The principle of the Lenk system is original, and may be described as follows. In the construction of the bore, General Lenk set about preventing the unsteadiness of the projectile, and its striking from side to side in its passage from the chamber. His contrivance to effect this purpose is in accordance with a practical impossibility. If we were to give to the bore a triangular section—one of the apices on the inferior generating line of the former—and a similar section to the projectile, all the windage would be between the upper side of the bore and the upper face of the projectile, and thus the latter would be completely constrained in its movement in the bore of the piece. But, of course, this triangular form is inadmissible. Still, its advantages may be secured by giving to the projectile such a form as that presented by a cylinder round about which is rolled a prism of triangular section, and by giving to the bore a form similar to that of the projectile, by abstracting from its circumference a prism of similar section. All windage would thus be limited to the space between the base of the rolled prism and that of the prism abstracted. Moreover, there would be nothing to prevent giving a rotatory movement to the projectile, by rolling and abstracting the prisms according to

* Conférences sur l'Artillerie.

the incline of a generating line ; but thus the form of projectile would be non-symmetrical. In order to obtain this symmetry, we have only to suppose, instead of a single cylinder rolled on all its surface, six cylinders, for instance, each rolled over one-sixth of its surface, and do the same inversely with the bore of the gun. Such is the very ingenious system of General Lenk.

Austria has two field-pieces—the 4 and 8-pounder, with a 3-pounder mountain-gun, all with six grooves. The projectiles are of four kinds—the common shell, the Shrapnell, the incendiary shell, and canister. The ordinary shell—cylindro-ogival in shape, and ingeniously constructed—bursts, from the 4-pounder, into about forty splinters, and that of the 8-pounder into sixty. Both time and percussion fusees are used. For the Shrapnell a time-fusee is employed, and it gave good results both in 1864 and 1866.

It appears that the Austrian guns are very inferior to the Prussian as to the dangerous spaces beaten by the projectiles, especially at great distances ; these spaces being very nearly equal in the French and Austrian guns.

In comparing the weight of the Austrian artillery with that of the same arm among the other Powers, it is evident that the former claims superiority over all others in point of mobility, and its gun-carriage permits the greatest angle of fire hitherto attained, namely, from $- 8$ deg. to $+ 23$. It is of wood. These are very important advantages, and they make up for very many defects.

The Austrian artillery—the creation of General Lenk—although somewhat complicated, is decidedly the result of an original idea which certain improvements might render more practical. Such as it is, the Austrian artillery presents incontestable advantages—advantages which its inventor tried to increase by replacing gun-powder by gun-cotton. This fact is not without military as well as scientific interest.

The advantages of gun-cotton are as follows :—It is three times more powerful than gunpowder, that is, a portion one-third of the weight of gunpowder produces the same balistic effect as effected by the latter. The force of recoil is much weaker with it than with gunpowder. Its action is more equable than that of powder, and, consequently, it secures greater accuracy of fire. It produces less smoke than its rival, scarcely leaves any residue or fouling, and exerts no injurious action on the material of guns. Its rapid combustion permits the adoption of a shorter piece, which secures greater lightness, effecting increased mobility. In consequence of the smallness of its residue in combustion, the windage in muzzle-loaders may be reduced to the minimum. Finally, for bursting purposes, gun-cotton is much more powerful than gunpowder. Unfortunately, however, its preservation is difficult, and it explodes from unforeseen and unknown causes.

General Lenk thought he had succeeded in eliminating these inconveniences by means of a special preparation of the substance,

and during the long trials of gun-cotton in Austria no accident ever occurred. Gun-cotton was consequently adopted by Austria, but in the year 1862 a magazine near Vienna, containing common powder and gun-cotton, exploded. The cause of this accident was never ascertained, but it nevertheless led to the abandonment of gun-cotton. However, as Captain De France significantly puts it, we have not as yet heard the last word about gun-cotton for military purposes, and its great advantages over gunpowder should induce systematic trials with this scientific improvement on the old "villanous saltpetre"—of barbaric invention, and unworthy of our modern high art-implements of war.*

Russian Artillery.—In 1859, that is, after the Italian War, Russia adopted rifled guns—4-pounders of bronze, very similar to those of the French; but rejected them soon after, and replaced them with rifled breech-loaders of steel, on the Kreiner and Broadwell systems, with a Prussian modification in the closing of the breech. In fact, at first, Russia obtained all her guns from the Krupp factory, the first efforts of the Russians to do without foreigners in gun-construction not having been successful. Ultimately, however, the Russians managed to utilize their abundant bronze in store, by making guns of this material with a steel bore.

The Russians have guns of two calibres—4-pounders and 9-pounders. The former fire projectiles weighing about 12 lbs., and the latter projectiles of over 22 lbs. weight.

It is a curious fact that the Russians have discovered the means of securing the desirable ricochet with oblong projectiles. Count Michowski determined to impart this property to them, whilst retaining the advantages of their elongation. For this purpose he contrived a projectile furnished with a coating of lead, the nucleus of which is similar to that of the ordinary oblong projectiles in the cylindrical portion; but the ogival part is occupied by a sphere of somewhat smaller diameter than that of the cylindrical portion, and connected to the latter by a feeble thickness of metal; lead being melted round the projectile, the latter assumes the external shape of a sphere and a cylinder. When the projectile strikes the object and the internal charge explodes, the weak layer of metal which connects the cylinder with the sphere is broken; the sphere is thus detached, and is able to play the part of any other spherical projectile in the matter ricochet. Trials made with these new projectiles, comparatively fired together with common shells, have shown that their effects are not inferior,

* Gun-cotton is produced by throwing cotton-wool, in small portions at a time, into a mixture of equal volumes of strong sulphuric and nitric acids, and washing it thoroughly in abundant water, so as to remove all trace of acid, and then carefully drying it. This substance is what is called, in chemistry, a "substitution product;" being cellulose, in which two or three atoms of hydrogen are replaced by nitrogen and oxygen (NO_2).

and that their spherical portion ricochets in a very remarkable fashion. These projectiles are now permanently adopted by the Russians in place of common shells.

The Russians have also provided their artillery with mitrailleuses on the Gattling system, modified by Gorloff.

Dutch Artillery.—The Dutch have altered their old bronze 6-pounders into a sort of modern ordnance, by running melted bronze into the bore, and then boring a new calibre—a 4-pounder rifled on a system analogous to that of the French. Holland has also smooth-bore 12-pounders. It appears that their endeavour to transform them after the fashion of their 4-pounders, into 8-pounders, has not as yet succeeded. This economy or parsimony of the Dutch in utilising their ready material, in view of adopting modern improvements in artillery, appears to be open to the objection involved in the caution against putting new wine in old bottles.

Belgian Artillery.—Belgium has 4 and 6-pounder steel breech-loaders on the Wahrendorf system, almost identical with those of Prussia. Captain Nicaise, in his work on the Belgian Field Artillery, ascribes to them a somewhat superior accuracy of fire over those of Prussia. The common shells and Shrapnells are armed with a percussion-fusee similar to the Prussian, but efforts are being made to contrive a double-action fusee, that is, to act as a time-fusee as well as a percussion-fusee; hitherto without satisfactory results, none of the models having secured the desired combination.

Swedish and Norwegian Artillery.—Sweden and Norway have recently organized their field artillery after the same fashion. It consists of two calibres, with projectiles of about 7 lbs. and 13 lbs. weight. These projectiles are furnished with a percussion fusee of great simplicity, small cost, and efficiency. It is of brass, presenting a longitudinal canal containing a percussion-lock—a brass cylinder, furnished at its upper part with a steel point, and presenting laterally, in accordance with two generations diametrically opposed, two longitudinal rabbets or grooves. This percussion-lock is suspended at a certain distance from the bottom of the fusee by means of a fine transversal wire of lead or tin traversing the body of the fusee. For greater security in transportation, a double tongue of brass, which is removed when charging, also traverses the body of the fusee and the percussion-lock.

At the starting of the projectile, the wire which suspends the percussion-lock is broken; the latter, thus set free, goes forward when the projectile touches the object, and the steel point, striking on a fulminating capsule carried by a nipple, which closes, at its upper part, the canal of the fusee, fires the projectile. The flame is communicated to the interior of the projectile by the longitudinal grooves of the percussion-lock. Nothing can be more simple than this Swedish contrivance.

The Swedes have also a time-fusee on the Breithaupt system. The greatest defect of this fusee is the position of its priming chamber—which, indeed, gives occasion in all fusees to a great number of missfires by extinction.

All the guns are of cast-iron, and the superior qualities of Swedish cast-iron are well known. They are all muzzle-loaders, rifled on the French system.

Danish Artillery.—Denmark has only cast-iron 4-pounders. At first, with a view to modern improvement, the Danes tried to force their smooth bore bronze 3-pounders to the 4-pounder calibre, and to rifle them; but the metal was found to be too soft, and the grooves were soon reduced and rendered inefficient. The present Danish 4-pounder, rifled on the French system, fires a projectile of about 7 lbs. weight; but the strength of the metal is so great that this 4-pounder can fire, without risk of bursting, projectiles of 9 lbs. and 10 lbs. weight, so that the Danish artillery, which is the lightest in Europe, is enabled—with the same calibre—to fire more powerful projectiles than any other.

Italian Artillery.—The Italian field-artillery is armed with bronze 6-pounder muzzle-loaders, rifled on the French system, with a projectile weighing about 8 lbs. There have been recently introduced, by way of trial, light guns of a particular construction by Mattei-Rossi. The projectile of these guns weighs only 4 lbs., and with a charge only of one-third of that required by the 6-pounder, it secures greater accuracy and effects. The batteries armed with these new guns are twelve in number, and a battery consists in all of thirty carriages. It is not stated whether Italy has definitely adopted this gun for her field-artillery.

Spanish Artillery.—At first, Spain adopted bronze muzzle-loaders on the French system; but in 1868 these were replaced by steel breechloaders. Spain has also bronze guns rifled on the same system.

Swiss Artillery.—Switzerland is, unquestionably, one of the countries where the question of artillery has been studied with the greatest care.

At the commencement of the year 1860, Switzerland adopted a bronze 4-pounder, rifled on the French system, modified by Colonel Müller. It has six grooves, and fires the three sorts of projectiles.

The special object of Colonel Müller's invention was the expansion of the projectile. This he obtained by means of a sabot of lead, run over the posterior portion of the projectile. This sabot presents, on its cylindrical part, six projections; the projectile has a second crown of studs near its ogival part; but these studs only serve to guide the projectile, and do not contribute to the expansion. It is hollowed out from 6 millim. of its posterior part, so that, under the pressure of gas, it expands, forcing its projections into the grooves. Two channels in the sabot, extending into the

metal of the projectile, allow the gas to inflame the fusee, although the expansion is nearly complete.

The following are the advantages of the Müller projectile. The expansion is as complete as though the gun were a breechloader, and the friction is less than in leaded projectiles, since it occurs only as to the height of the sabot—that is, about one-fifth part of the cylindrical portion of the projectile. The studs, being subjected to no expansion, exert but a feeble friction on the grooves. It is this relatively feeble friction which permits the firing of the projectile, which weighs more than 8 lbs., and secures an initial velocity of 380 m., whereas the French shell, of about the same weight and with nearly the same charge of powder, attains an initial velocity of only 325 m.; and the Prussian shell, exactly the same weight as the Swiss, but with a slightly inferior charge, has an initial velocity of 360 m.

The superior initial velocity of the Swiss shell naturally gives it a flatter trajectory. In this respect it exceeds that of the French, Prussians, and Austrians. It must, however, be admitted that this superiority is attained by means of great complexity in the projectile, which renders it, moreover, difficult of transportation. Hence, doubtless, its probable disfavour with the Swiss; for, in 1866, whilst retaining it, they adopted a steel 8-pounder breechloader, on the Prussian system, modified by that of Broadwell.

Besides these, the Swiss have transformed a number of rifled bronze 12-pounders into breechloaders on the Prussian system; and they have recently purchased a certain number of 12-pounder steel batteries.

Having thus reviewed the field-artillery of all the European Powers, and examined the principal types of guns in use, and their respective properties, we have now to draw a conclusion from the study, and venture upon a comparative estimate.

This estimate must refer especially to the preference to be given to either the muzzle-loader or the breech-loader.

On this question Captain De France cannot avoid emphatic suggestion—considering that his country, at the present time, has to restore her field matériel, which, for the most part, has fallen into the hands of the Prussians. The following are his final conclusions. It may be admitted that breech-loading presents an easier method of obtaining great accuracy, and considerable flatness of trajectory; but, on the other hand, muzzle-loading does not necessarily exclude these qualities, since they are found in our English muzzle-loaders and in the Müller gun.

The problem is more difficult of solution, since muzzle-loading permits the continuance of the chief cause of irregular and inaccurate fire—the degree of windage necessary for the introduction of the projectile. Experience, however, has shown that it is not insoluble; and, by annulling this evil influence of windage with

an appropriate twist of rifling, we may preserve the very precious advantage of inflaming the fusee by the gas of the charge.

The question of fusees is, indeed, of the utmost importance. It is not sufficient that a gun has long range and accuracy. It is necessary that when its projectile hits the object, it should produce the entire effect of which it is capable.

Now this effect depends in a great measure and chiefly on the fusee, which should make it burst at the desired point; and this desired point should be in front, and at a certain height above the object, whenever the latter is a troop.

The time-fusee only can give this result. Now, to secure the time, it must necessarily be complicated to a degree; and this complication is doubled, if, to the mechanism—in order to render the fusee accurate as to time—we must add an appliance to produce the firing of the fusee. This appliance, complicated by breechloading, is reduced by muzzle-loading to a mere priming placed in the head of the fusee.

In the next place, although it may be admitted that a system both simple and solid may be contrived for the closing of the breech, it is none the less evident that a breech-loader will always be less simple than a muzzle-loader. The closing apparatus will always be more or less exposed to deterioration, both by the piece itself and the effect of the enemy's projectiles. Now, it is certain that no inconvenience exists on this score with respect to muzzle-loaders.

Now, as to the projectiles, if the most appropriate form to be given to the projections and their position demand more study and calculation than the envelope of lead covering the breech-loader projectiles, the fabrication of the former is not more difficult, their preservation is more assured, and their transportation more facile. Indeed, in certain muzzle-loaders—the Whitworth, for instance—the projectile is not furnished with projections. In a word, admitting, after the results of trials, that muzzle-loading does not exclude range and accuracy, it seems evident that the two advantages—simplicity and facility of firing the fusee of the projectile by the powder gas, should direct all efforts to contrive a system of that nature for our artillery.

There is one advantage which is exclusively possessed by breech-loading, namely, the means of loading the piece without moving it. This is a most important advantage in sieges, for the movements requisite in placing the piece out of battery and in battery, before and after loading, exact a space of time more or less considerable, during which the men are exposed.

As in sieges, time-fusees are seldom required; the advantage of retaining windage for the inflammation of the fusee is not of any importance; and with regard to the exposure of the men caused by muzzle-loading, we may observe that the pieces, being sheltered by epaulements, are less exposed to the enemy's fire.

On the other hand, breech-loading must be considered more appropriate for siege-artillery, fortresses, and coasts, and for naval ordnance. The motives which sanction the adoption of breech-loading for siege-guns, fortresses, coasts, and the navy, are precisely the same which have induced, at least in part, its adoption in small arms. In the latter, muzzle-loading exacted movements which could not be executed in all positions, but which are facilitated by breech-loading. Windage was a necessity in muzzle-loading—a necessity which had only disadvantages that could not be got rid of by means of projections fitted to the grooves, as in guns. In order to abolish windage in muzzle-loading small arms, the following expedients had to be adopted:—The bullet had to be flattened after its introduction into the bore—a complicated method which deformed the projectile—a result detrimental to fire, and which prevented its having that elongated form which has been found to secure the greatest advantages; or, the diameter of the projectile at its posterior part had to be augmented by expansion at the moment when driven forward by the gas of the charge. The latter method gave the bullet a complicated form. It certainly permitted elongation, but opposed the diminution of the diameter below a certain limit. Now, it must not be forgotten that it is chiefly to their small calibre that our breech-loading small arms are indebted for their accuracy and their range.

For artillery guns, the diminution of the diameter would have the same advantages, but these advantages would be annulled by the small effect of the projectiles.

In small arms, breech-loading alone could give the desirable rapidity of fire. As in cannon, it complicates the weapon; but this complication is less prejudicial, and is, moreover, largely compensated by the advantages which it secures.

This comparison of small arms and guns with regard to the mode of loading, was necessary, because it is certain that the good results obtained by breech-loading small arms—results unattainable by muzzle-loading—have greatly concurred in disseminating the idea that the same would be the case with similar field-artillery, and that without breech-loading there was no hope for the latter—an opinion which, as it must now be evident, is utterly unfounded. The problem is to give the utmost perfection to muzzle-loading, being convinced of its superiority for field-artillery in all the requirements of the arm.

In terminating this review of the Artillery of the nations, we cannot help thinking of the prodigious cost involved by the requirements of this arm, now more indispensable than ever. A glance at some of the items of our gun expenditure will give an idea of what England has to pay for her Artillery, of which, however, she is most justly proud. Each of our wrought-iron, steel-lined, muzzle-loading guns is produced and charged to Government departments, minus sights and elevating plates, but includ-

ing cost of proof: 12-inch 600-pounder guns, 23 tons weight, £2,627 each; 11-inch 500-pounder guns, 25 ton weight, £1,893 each; 10-inch 400-pounder, £1,305; 9-inch gun, £912; 8-inch gun, £693; 7-inch gun, £503. So much for the very big guns. And now for the smaller pounders:—9-pounder guns, £84 each; 6-pounder guns, £78. In round numbers these prices show an increase of 400 per cent. over what cast-iron guns cost—that is, taking the old standard for cast-iron guns of £20 per ton. No wonder, then, that the minor Powers, especially the Dutch, are far behind in the race after perfection in modern artillery.

Mitrailleuses.—The original idea which led to the invention of these new engines of war was as follows. Small arms having secured ranges of 1,000 and even 1,200 metres, with bullets weighing 30 to 45 grammes, would it not be possible, by augmenting the calibre of the arm, the weight of the bullet, and especially the weight of the charge, to obtain ranges up to 3,000 metres—the greatest, in fact, that the limits of vision permit artillery to use in a campaign? We should thus obtain, instead of a hollow cast-iron projectile weighing 8 lbs, a certain number of solid bullets of a softer metal than cast-iron, and which would lose little of their velocity by the resistance of the air, on account of their elongated form and fashioning. Thus, after substituting several small bullets for one big shell, the substitution would be rendered complete by firing the former as rapidly as possible.

The first mitrailleuse was constructed in 1851 by Faschamp, in Belgium, although similar ideas had been long before worked out in England and elsewhere. It was, however, in the United States, during the War of the Secession, that the “notion” of uniting a number of carbine barrels on the same carriage—for the purpose of increasing to the utmost extent the rapidity of fire—was reduced to practice by Réqua, and especially by Gattling.

As at present constructed, Gattling’s mitrailleuse of the smaller calibre fires with regularity up to 1,200 metres, and that of the larger calibre up to 2,400 metres, with the capability for greater range. Indeed, the regularity of fire is perfect, for the ranges scarcely vary 50 metres at the distance of 2,400 metres, and can reach the enemy—whose distance could not be appreciated with greater accuracy—with as much probability as though all the shots aimed in like manner reached the same point.

Captain De France furnishes interesting details respecting the French Mitrailleuse, or *Canon à balles de Meudon*, as he calls it, rejecting the former name as erroneous. It resembles in appearance an ordinary piece of artillery, but consists of 25 gun-barrels, capable of being moved from left to right on a pivot, up and down on trunnions. Its range is 2,500 metres.

From a table detailing its performance, it appears that the dangerous space of its fire, which is very great at short distances, diminishes very rapidly. This results from the very rapid augmen-

tation of the angles of fire, and the still more rapid increase of the angles of fall, in relation to the angles of fire. Thus, at 500 metres, the difference between the angle of fall and the angle of fire is 1 degree; at 2,700 it is about 18 degrees. Nevertheless, for the same distances, the angles of fire are smaller than with the chassepot, and, consequently, the trajectory is flatter. At distances less than 1,500 metres, the spread of the bullets is restricted to a breadth not exceeding $11\frac{1}{4}$ metres. This extent being insufficient for firing on lines, its increase was attempted by giving the piece, during the successive discharges, a lateral movement, by means of a screw turned at will. One turn of this appliance augmented the dispersion of the discharge by 1 m, 428 for every 100 metres of range. Thus, the extent of the rectangle circumscribed at the fall of the 25 bullets is, with one turn of the appliance in question 11 m, 14 instead of 3 m, 75 at 500 metres, and 29 m, 28 instead of 7 m, 50 at 1,000 metres. Nevertheless, one of the chief defects of the French mitrailleuse is still its inability to disperse its discharges sufficiently. It may be proper to remark, however, as we have on a former occasion, that the parties who worked the engine during the war were incompetent for want of practice with the new weapon, and they neglected to use the appliance for effecting lateral movement. Moreover, to secure the effect, the lateral movement and the turn of the percussion-screw must be simultaneous.

The following are the prominent details of the ballistic properties of the mitrailleuse, as tested at the polygon. Two different kinds of fire are employed, according to the circumstances, whether the distance be known or unknown. When the distance is unknown, progressive fire is employed, the object of which is to determine as quickly as possible the due elevation of the sight. It consists in firing successive volleys over the extent of ground on which the object is supposed to be placed, so that no part of the extent can escape the fire. In its execution, No. 1 of the gun detachment, after having fixed the sight relatively to a minimum estimation of the distance, modifies the inclination of the piece after each discharge by a one-quarter turn of the aiming screw. According to theory, this mode of firing is to continue until the disorder in the ranks of the enemy shows that the object has been attained. Captain De France suggests that, as each turn of the screw produces variations of range more and more diminished in proportion to the increase of the distance, a good sight might be quicker secured by giving more than a quarter-turn to the screw at great distances; but, on the other hand, by increasing the elevation by only one quarter-turn at a time, the advantage is secured of obtaining effects more capable of observation, by the repetition of the discharges—the variation being small between each round. Of course this method of progressive fire augments the consumption of ammunition; but this disadvantage is vastly compensated by the certainty of securing a result in

much less time than would be required to ascertain the distance by means of an instrument of precision. When the distance is known, or after it has been determined by the progressive fire, the fire is continued either by volley or at will, with a fixed sight. The following is an example of the *tir progressif* upon troops in sight. The pannels represented a line of infantry with a front of 145 metres, divided into four companies. The distance was unknown and estimated at the minimum as 1,500 metres. From that distance progressive fire was executed with four pieces. At the 7th volley, a signal from the post of observation indicated that the shots struck the pannels. The commandant of the battery then ordered the sight to be fixed, and fired three volleys with the sight for 1,900 metres, to which the successive movements of the adjusting appliance had advanced. The result was as follows :—

1st company	.	.	.	.	28 hits.
2nd	"	.	.	.	33 "
3rd	"	.	.	.	25 "
4th	"	.	.	.	18 "

Total . . . 105 "

This experimental fire had lasted $2\frac{1}{2}$ minutes, the fixed sight one minute.

Here is an example of the performance of the mitrailleuse, with the progressive fire against hidden troops. In such circumstances it may happen that the effect produced cannot be observed. The enemy may be concealed from sight by trees, hedges, the smoke of the fire, or be hidden by inequalities of the ground where he is known to be posted. In this case, two approximate distances of his position are estimated. Then, taking as point of departure the sight relative to the shorter distance, a number of progressive volleys are discharged until the greater distance is reached; the same kind of fire being repeated as often as may be thought necessary. In one of the trials the object was a line of pannels 180 metres in extent. The commandant of the battery of six pieces estimated the object to be between 1,500 and 2,000 metres distant, and fired progressively the 10 volleys necessary for scouring the ground comprised betwixt the two limits. There were 115 hits, 28 of which were ricochets. The true distance was 1,700 metres. The fire had lasted $3\frac{1}{2}$ minutes.

In another trial, 60 square pannels represented a line of skirmishers concealed; 20 similar pannels, 100 metres in rear, represented a reserve of hidden skirmishers. At 100 metres further, a line of pannels, one metre in height, and 160 metres in width or front, represented a battalion of reserve kneeling, in a depression of the ground, and which was not in sight of the battery. It was estimated that this body of troops was between 800 and 1,400 metres distant, and five progressive volleys were fired. The result was as follows :—

The line of skirmishers received	. 4 hits.
The line of reserve	„ . 1 „
The battalion	„ . 57 „
<hr/>	
Total . .	62 „

The fire had lasted $1\frac{1}{2}$ minutes; the true distance of the battery from the reserve was 1,100 metres.

The following were the results of fire executed at known distances by a battery of six pieces, in one minute :—

Against pannels representing a battalion of six companies deployed, each covering 35 metres.

At 1,400 metres	100 hits.
„ 1,600 „	63 „
„ 1,800 „	87 „

Against pannels representing a battalion in column by divisions.

At 1,400 metres	283 hits.
„ 1,600 „	375 „
„ 1,800 „	200 „

In the field, the progressive fire must be considered normal, the distance being never exactly known. It also recommends itself especially in firing at field artillery. Certain it is that, in a combat of artillery against artillery, the advantage must remain to him who has first regulated his fire. Now, with field artillery, we can only regulate our fire by the observation of the fall of the projectiles, and by a sort of “feeling” in the sight, both which always entail a considerable loss of time; whereas, with the mitrailleuse, it appears that almost always less than three minutes will suffice to catch the range. Here are two examples of mitrailleuse fire upon two batteries, at the polygon.

A battery is in regular position of fire. Pannels 1 m, 80 in height by 1 metre in length, represent each file of the gun-detachment. Pannels 2 m, 25 in height by 2 metres in length, represent the horses of the fore-trains and drivers; similar pannels represent the horses of the caissons and drivers. The distance is 1,500 metres. A fire of two minutes' duration gives the following results :—

46 bullets in the line of the men.
34 „ „ fore-trains.
36 „ „ caissons.

At the distance of 2,360 metres, a fire of the same duration—one minute—gives :—

10 bullets in the line of the men.
15 „ „ fore-trains.
16 „ „ caissons.

It is interesting to compare the effects of the mitrailleuse with those of the infantry rifle, in the limits of the fire of the latter. The trials instituted at the Camp of Châlons, in 1868, gave the following results. With regard to the mean accuracy of infantry

fire on a line of pannels 1 m, 80 in height, representing a battalion deployed, the figures were:—

At 600 metres	21·3 per 100.
„ 800 „	11·8 „
„ 1,000 „	6·33 „
„ 1,200 „	5·1 „

Now, a man cannot, with sighting, fire more than five shots a minute. From these data, and the results obtained with the mitrailleuse in the trials at Versailles, the following figures were established.

At 600 metres, the number of shots that a man can fire in one minute on the target was 1·0650; the mitrailleuse fired in the same time, 57·50; the number of men required to put as many bullets into the target in one minute as the mitrailleuse would be 54. At 800 metres, the respective figures were—for the man, 0·5900; for the mitrailleuse, 57·50; the number of men required to do the same, 78. At 1,000 metres, the figures were—for the man, 0·3165; for the mitrailleuse, 37·80; the number of men required to do the same, 119. At 1,200 metres, the respective figures were—for the man, 0·2550; for the mitrailleuse, 30·96; the number of men required, 121.

We must not conclude, however, from this table that a mitrailleuse is equivalent to 54 men at 600; and 78 at 800, &c. We have to take into account the number of men required to serve the mitrailleuse and bring it upon the ground. Now, the effective of a battery of mitrailleuses being 148 men, the number of men per piece is about 25. We must, therefore, in reality, multiply, in the above table, by 25 all the figures under the second item; or, which comes to the same, divide the figures of the last item by 25. The figures thus obtained will give, for a determinate number of combatants, the relation of the effects produced by making them serve mitrailleuses, or by arming them individually with a chassepot. The figures are:—

At 600 metres	2·16
„ 800 „	3·12
„ 1,000 „	4·72
„ 1,200 „	4·84

It is equally useful and expedient to compare the effects of the French 4-pounder, with those of the mitrailleuse. A deployed battalion was hit as follows by the 4-pounder:—

80 hits per 100 shots at	500 metres.
40 „	1,000 „
23 „	1,500 „
12 „	2,000 „
4 „	2,500 „

Supposing the gun to fire two rounds per minute, a battery of six pieces will fire twelve rounds. We may then establish the following tabular results, each mitrailleuse being supposed to fire three rounds per minute:—At 1,000, the number of projectiles

which, in one minute, hit a deployed battalion, the battery firing two salvoes or twelve rounds, was 4·80; the mitrailleuse, firing three volleys or eighteen shots, made 170 hits; the ratio in favour of the latter being 35·42.

At 1,500 metres, the respective figures were 2·76 for the gun; 98 for the mitrailleuse; the ratio almost identical, namely, 35·50. At 2,000 metres, 1·44 for the gun; 46 for the mitrailleuse; the ratio 34·94. At 2,000 metres, for the gun, 0·48; for the mitrailleuse, 17; the ratio again 35·42.

It must be remarked, however, that the shells were not charged, and that the projectile of the 4-pounder splits, on the average, into 24 splinters, but all do not carry; very far from it, the average number of splinters being only 5 at 1,100, and 1·8 at 2,200 metres.

The figures of the last tabular item above given, demonstrates that, to produce the same effect as that of batteries of mitrailleuses, the projectiles of the battery of 4-pounders should give, on the average, 35 splinters in the pannels. Unfortunately, these French projectiles only give, on an average, 24 splinters, most of which do not carry.

From a table given by Captain De France, it has been established that the case-fire of the French 4-pounder field-piece is inferior to that of the mitrailleuse, but that the Shrapnell produces nearly equivalent results.

The conclusions to be drawn from the preceding data, with regard to the employment of the mitrailleuse in the field, appear to be as follow :—

Batteries of mitrailleuses may contend with advantage against the fire of skirmishers, against whom ordinary guns are powerless, and crush their reserves. Against deployed troops they should be posted beyond the range of infantry fire; but, nevertheless, not beyond 2,000 metres, their trajectory not being flat enough beyond that distance.

Against troops in column and mounted troops, their fire may be extended to 2,400 metres; but, in general, the distances comprised between 1,400 and 2,000 metres will be the best; because the mitrailleuses, whilst out of the reach of the fire of lines of infantry might exert a decisive effect in a very short time, and, consequently, suffer little from the fire of the enemy's artillery. Their fire against artillery appears to be powerful enough at 2,000 metres; and they should not be employed at a less distance than 1,500 metres, so as to keep them out of the reach of the Shrapnell.

The utmost range of the mitrailleuse is 3,000 metres; at this distance its bullet traverses three deal planks three centimetres in thickness; but the angle of fall is 45 deg.; consequently, it should not be used at this distance, except against very deep masses. In general, we should always bear in mind that the mitrailleuse is not designed merely to augment the losses of the enemy without results, but especially to produce immediate and decisive effects. To fire at too great distances would entail an expenditure of am-

munition out of proportion to the result produced. The enemy would be inspired with prudence by unveiling the presence of the battery by a too hasty fire ; and we might thus lose the opportunity for producing a decisive effect ; the object of the mitrailleuse being sudden, unexpected, crushing. The batteries should be very mobile. Perhaps it would be desirable to make them horse-batteries. At any rate, the carriage should be adapted to convey two men, in order to admit of manœuvring with the pieces without encumbrance of caissons.

Although it results from the comparative tables before given, that the mitrailleuse can produce an effect equivalent to the fire of 54 men at 600 metres, and of more than 100 men at 1,000 metres, we must nevertheless avoid bringing it into action under infantry fire ; for it must not be forgotten that the men possess an incontestable advantage in consequence of their individual mobility, which enables them to conceal themselves, either by lying down or by taking shelter behind obstacles, and also by augmenting their intervals ; whereas, the material, the men, and the horses of a battery are necessarily in sight and present an immovable group. The design of the mitrailleuse is to carry its bullet to distances that the rifle and case-shot cannot reach. To engage them under infantry fire would be to divert these new arms from their object—employing them in bad conditions, and exposing the batteries they form to certain destruction.

As before observed, all the desirable advantages of mitrailleuses were not secured in the last war. It must be admitted, however, that on certain occasions they produced a good effect. The following statement is from a German publication :—“The French mitrailleuses produced good results, both by the moral effect of their peculiar rattle and the great number of projectiles discharged with great rapidity, when the French occupied well-chosen defensive positions, in which the mitrailleuses could display all their advantages. Such, however, was not the case in all the phases of battle. Like the chassepot, they could open fire at great distances, and produce effect upon isolated points ; but only until the fire of artillery—to which they are inferior—reduced them to silence and compelled them to retire. One of the defects of the mitrailleuses results from the combination of the barrels in the same direction ; and accordingly it was often remarked that the men killed by the mitrailleuses were struck by several bullets, whilst a single one would have sufficed. It cannot be denied that the French mitrailleuses, especially in the positions where they could be sheltered up to the decisive moment, caused great losses to the German troops ; nevertheless, a mitrailleuse occupying the same space, and requiring the same number of men and horses as a field-piece—whilst its sphere of action is more limited—the question is whether a true battery be not more valuable than a battery of mitrailleuses. After the campaign of 1866, Prussia directed her attention to the American and Belgian mitrailleuses. The result was that this

new engine of war should not be adopted, because it was deemed unnecessary to reinforce the fire of the needle-gun; and, besides, because more confidence was placed in the Prussian field-piece than in a mitrailleuse. Considering the results secured by the French with their mitrailleuses in the late war, we ought to recommence our trials with the rifle and the mitrailleuse; but in every case, it is desirable that Bavaria which, before the war, tried the Feldl mitrailleuse—which seems to possess great advantages—should estimate the practical experience gained in the field.”

Obviously the question of mitrailleuses is still to be developed, as one of the highest importance. Captain De France emphatically promises them a great future. They will never dethrone cannon, which can alone act efficaciously against resisting obstacles, and the number of which will be augmented in the field of battle just in proportion to the murderous effects of warlike engines; but against a troop, at the decisive moment of attack and defence, the mitrailleuse is one of the most powerful auxiliaries. Their part in the attack and defence of places is also very important; and General Favé, who has well considered the subject, goes so far as to declare that the mitrailleuse is destined to modify the art of fortification. If in the last war the mitrailleuse did not produce all the effect that was expected, the reason was, first, that those who fired them, as well as those whose duty it was to regulate their employment in the field, were insufficiently acquainted with them; and, secondly, that a most extravagant idea had been formed of their value—such as the belief that they were to mow down entire battalions and squadrons as easily as, in the polygon, they had apparently demolished entire ranks of horses and perforated motionless pannels. The Germans rarely exposed themselves to the effects of the mitrailleuse; but in addition to this, still less frequently was the proper moment seized by the French for the appropriate employment of the arm. For the most part they were employed together with divisionary batteries, against 50 and 80 pieces, which the Germans opposed to the French, and generally at too great distances.

RECORD OF THE SERVICES OF THE ROYAL FUSILIERS. (*Concluded.*)

The repulse on the 18th June initiated another bombardment. It was clear that as yet the guns of the attack were not equal in the effect of their fire to the guns of the defence, and with the aid of experience to guide the thoughts of men, that should have been regarded as a fact, at once strange and not to be accounted for. But the lesson that it taught was only very feebly understood. Neither in the English nor the French army was it fairly compre-

hended that in the true application of military engineering—vastness of resource and the ready adaptation of every means within their reach—the Russians had established a superiority which of itself alone was holding Sebastopol. The allied engineers having failed to perceive their defeat, turned to the artillery as the weak point in their attack, and forthwith commenced to increase that arm. In doing so they abandoned the little science they had hitherto employed, and tacitly admitted that the combat must lie between the gun foundries of England and France as opposed to those of Russia. This was their great and fatal error, an error fully acknowledged at a later period, when they prudently abandoned the battering of the earthwork defences, and turned their guns upon the destruction of the town. But it was long before this error was perceived, and in the meantime the narrow intricate trenches had to be manned and held as before, and the siege pushed forward in the tardy manner that had so long characterised it.*

The losses of the Light Division in these encounters and in the trench duties had been very serious. Writing on the 23rd, the correspondent of the *Daily News* says most of the regiments of that division were greatly reduced in strength; the 34th had no captains and only three lieutenants available for duty, and both it and the 7th Fusiliers had to borrow officers from other regiments to carry on the duty. In this crippled state matters progressed with very little variation from the usual dull turn of trench-duty and its accompanying losses until the night of the 2nd of August, when the pickets had a smart brush with the Russians at the picket house on the Woronzoff Road. The enemy, whose design was to

* It may be said that this is opening up a question which is foreign to the Record of the Services of an Infantry Regiment, but that is perfectly immaterial. The regiment had to endure the labours and losses consequent upon the course adopted; and if—as is the glorious tradition and practice of the British Service—on duty a regiment must endure and suffer in silence, let the regiment be exonerated by the fact that it is not responsible for these remarks. The two failures to carry the Redan arose out of the inability of the Royal Engineers to carry cover for the troops up to within a very near distance of the parapet of the work. In the last assault of the Malakoff, the French succeeded because their established position was near enough to enable them to surprise the work by a rush. It is beyond all question, when we consider the success they actually achieved on the 8th of September, that if the English troops could have been established under cover at an equal distance from the Redan, that they would have carried and held the place more easily than the French did the Malakoff. The cause of their failure was not due to any want of courage on the part of the infantry who stormed the place; it was due to simple impotence arising from the want of adequate trench accommodation for the cover and formation of sufficiently strong storming parties, and then the long exposure of such parties as were enabled to start to the *mitraille* that unsubdued force, could use to destroy any number of troops that had to advance through it by weak successive waves. As an excuse for the failure to reach the place by sap, it is urged that the intermediate ground between the last parallel and the parapet of the Redan was so “difficult” as to defy the efforts of the sappers. That excuse we protest against as feeble beyond measure. If a corps of English “Civil” Engineers had been ordered to carry a “cutting” into the heart of the Redan, they would have done it, had the ground to be penetrated been solid rock. These gentlemen, when receiving the order, would have told their employer, Mr. Bull, that it was a perfectly feasible thing, the only matter to be considered was the amount of the estimate!

destroy our abattis, and so open the road, crept up in force and with terrific yelis. After firing a volley they made a rush at the post, and commenced tearing away the obstacle, when out bounded from Gordon's battery, where they were on duty, some of the Fusiliers and their old comrades of the 77th, and drove them back at the point of the bayonet. Both sides lost men. On the 5th of August Codrington reviewed the Light Division, "which went through some manœuvres in its usual steady and satisfactory style," and with this little interruption the Fusiliers were relegated to the monotonous trenches, to suffer and endure each day more and more, until the 8th of September, when the last assault took place.

We need not go into the details of the plan of attack; as on the 18th of June they were defective. The French were to attack the Malakoff, the capture of which was to be followed by the English assault of the Redan. As soon as the French had made good their footing in the Malakoff, a tricolour was run up to announce the triumph, and immediately after a small white flag—the signal appointed for the advance of the English—was waved from the parapet of the Mamelon. The stormers were then ordered forward. In the meantime the Rifles, under Captain Fyers, kept up a vigorous and deadly fire into the embrasures; but the thick rope mantlets, with which Russian ingenuity had long ago completely protected their gunners, to the complete surprise of the Allies, saved the Russian artillerymen, and allowed them to pour down their grape, which continued to fly thick and fast over the death space to be crossed. At the first rush the stormers took possession of the Redan, and, the Russians flying before them, could have held it, had they been properly supported. Instead of hurling forward the supports, "who crowded the trenches in the rear till the enemy had time to bring up his over-powering reserves and clear the Redan of our men," the rapidly wasting few who first gained possession were left to themselves, and bravely but vainly facing the gathering masses who swayed down upon them, they were swept back into the open to retreat or stand idle and impotent under fresh storms of grape from the guns they had once captured, but, singularly enough, had not been prepared to spike.

In the midst of confusion, arising in a great measure from the intricacy of the trenches, and the fatal want of space for the formation of troops, orders were then sent to the supports to go forward. In a moment the confusion grew infinitely more confounded, for, to use a mild phrase, misunderstanding was adding to it. The orders were given to the wrong regiments. The second brigade of the Light Division, which had been told off as the proper reserve, was sent forward. Three of the officers and some of the men had already been wounded in the trenches, but no sooner were they in the open than the pitiless storm burst upon them with a fury that staggered them. "Evident, however, as was the blunder, the gallant 'fighting 7th,' led by Major Turner, and the 23rd, under Colonel Lysons,

advanced to the renewed attack. The other regiments who should have preceded, followed in a state of beautiful pell-mell, and under a fire of grape and canister before which the bravest columns of veterans would have staggered, our young levies were led on to regain the ground which had been lost through mismanagement before." It was not, however, in human nature to make headway under such an iron storm; the men turned and sought cover under the parapet. Two young Lieutenants of the Fusiliers, Lieutenants Wright and Colt, were killed; Major Turner received a ball through his scalp—one of the narrowest escapes of the day; whilst Lieut. "Alma" Jones, of fighting fame, was knocked over by the fragment of a shell.* The assault was over, supports could not be sent up, and the English had failed! The losses sustained by the Fusiliers were heavy: Lieuts. G. D. Wright, and O. Colt, Sergt. A. Seddon, and Corp. W. Hargrave,† and 11 men were killed; Bt. Lieut.-Col. J. R. Heyland, Capt. J. F. Hickie, Capt. H. P. Hibbert, Lieut. M. H. Jones, Sergt-Major W. Bacon, Sergts. J. M'Cann, G. Whittle, W. H. Farrow, J. S. Wood, F. Holmes, J. Graham, W. Jowett, Corp. G. W. Henley, T. Settle, J. Garinley, and 39 men, severely; Bt. Major W. Turner, Sergts. T. Goring, R. Holmes, J. Munro, Corp. T. Brooker, and 17 men, slightly; Sergts. W. Fraser, John Stocks, and 7 men, missing.

But though the English had failed in their assault on the Redan, Sebastopol was no longer tenable to the Russians. What the English infantry had failed to gain, and even English guns could not destroy—the splendid earthworks that Todleben's genius had raised—could no longer be held, for they were too thoroughly searched by the showers of iron splinters that incessantly fell upon them to shield humanity from death. With the recollection that our splendid infantry—those mighty warriors whose march over every battle-field has been that of conquerors—had been held at bay by the stubborn Russ, we have been wont to think bitterly of our efforts and their results, but we must not forget that it was really the British army, by means of its artillery, that drove the

* "Under the head of 'dangerously' we are sorry to find once more the name of Lieut. M. H. Jones, 'Alma Jones,' of the 7th Fusiliers, who has been hit no less than seven or eight times at the Alma, in the trenches, and the affairs of the 7th and 18th June. He has within the last few days obtained his company, and we trust he may be as fortunate as heretofore in getting over the injury he has sustained."—*Globe Correspondent*.

† Though young in years, Corporal Hargrave was one of the veterans of the army, and though low in rank, he was one of the gallant spirits whose efforts had won for the Royal Fusiliers in the Crimea the designation of the "fighting 7th." He was shot through the head with a rifle ball, which went in at the back of the head and came out at the forehead. His brother, who was also a soldier serving in the Crimea, says, "Poor fellow, he never spoke again; he had jumped into the embrasures of the Redan, leading a company of men, as all the officers were killed or wounded. They were taking one of their officers by, who saw William, and said, 'Poor Hargrave, he deserved a better fate, but God's will be done!'" He had only been up from Scutari five days; he is buried close to the Redan along with the others who shared the same fate.

Russians out of Sebastopol. After the fall of the place, the Royal Fusiliers remained at the front, still doing duty with the Light Division. On the 14th November, the anniversary of the gale that ushered in the miseries of the preceding winter, in the great explosion which then took place, the regiment had 1 man killed and 12 wounded. Its experience, after this sad calamity, was one of monotonous inactivity, embracing only the tedious duty in Sebastopol. The regiment remained in the Crimea, performing duty in the city, until after the peace was signed; embarking for England, it arrived at Falmouth on the 27th June, 1856, and was sent thence to the newly-formed camp at Aldershot.

The following list contains the names of men, who having distinguished themselves, were recommended to the Emperor of the French for the French Military War medal:

Sergeant-Major Joseph Bell, landed in the Crimea 14th September, 1854; engaged at Alma and Inkerman; sortie 26th October, 1854, and both assaults on the Redan. Colour-Sergeant John Watts, landed in the Crimea 14th September, 1854; was engaged at the Alma, and brought the company out of action; engaged with the enemy in the sortie of the 26th October; and also at Inkerman, when he brought the company out of action; at the taking of the quarries, and both the assaults of the Redan, and was never absent from his regiment.

Sergeant John Laws, Sergeant Thomas Poulton, Corporal Patrick Hanlon, Corporal W. Marshall (wounded 18th June), were each of them engaged, both at Alma and Inkerman, the two assaults on the Redan, in all trench duties, and were never absent from the regiment.

Private Michael Edwards, served at Alma and Inkerman, at both assaults of the Redan, and the capture of the quarries; especially mentioned by the officer commanding the regiment on the last occasion; never missed a day's duty in the trenches.

Sergeant-Major William Bacon wounded in the attack on the Redan on the 18th June, and again desperately in the attack on the 8th September.

Sergeant William White, present at the battles of Alma and Inkerman, and in the trenches; left the Crimea in May, 1855.

The following received the Victoria Cross:—

Lieutenant William Hope, after the troops had retired on the 18th June, 1855, Lieut. Hope being informed by the late Sergeant-Major W. Bacon, who was himself wounded, that Lieutenant and Adjutant Hobson was lying outside the trenches badly wounded, went out to look for him, and found him lying in the old agricultural ditch running towards the left flank of the Redan. He then returned and got four men to bring him in. Finding, however, that Lieutenant Hobson could not be removed without a stretcher, he then ran back across the open to Egerton's Pit, where he procured one, and carried it to where Lieut. Hobson was lying. All

this was done under a very heavy fire from the Russian batteries.

Assist.-Surgeon Thomas Egerton Hale, M.D., for remaining with Lieut. H. M. Jones, 7th Fusiliers, who was dangerously wounded on the 5th parallel on the 8th September, 1855, when all the men in the immediate neighbourhood retreated, except Lieut. W. Hope and Dr. Hale; and for endeavouring to rally the men in conjunction with Lieut. W. Hope; secondly, for having on the 8th September, 1855, after the regiments had retired into the trenches, cleared the most advanced sap of the wounded, and carried into the sap, under a heavy fire, several wounded men from the open ground, being assisted by Sergt. Charles Fisher, 7th Fusiliers.

Private Matthew Hughes, was noticed by Colonel Campbell, 90th Light Infantry, on the 7th June, 1855, at the storming of the quarries, for twice going for ammunition across the open ground under a heavy fire; he also went to the front and brought in Private John Hampton, who was lying severely wounded; and on the 18th June, 1855, he volunteered to bring in Lieut. Hobson, 7th Fusiliers, who was lying severely wounded, and in the act of doing so was severely wounded himself.

Private William Norman, on the night of the 19th December, 1854, he was placed on single sentry, some distance in front of the advanced sentries of an outlying picket of the White House Ravine, a post of much danger, and requiring great vigilance; the Russian picket was posted about 300 yards in his front; three Russian soldiers advanced under cover of the brushwood, for the purpose of reconnoitring. Private Norman, single handed, took two of them prisoners, without alarming the Russian picket.

At the augmentation of the Army in 1855, the regiment received a second battalion. This battalion continued in home service until the 27th May, 1858, when it embarked for Gibraltar, where it stayed for some time, when it was sent to Canada. It served in Canada until August, 1867, when it returned home, arriving in Liverpool, where it was stationed during the winter, going thence to Bury. It is at present stationed at Cork.

The first battalion, on its return from the Crimea, scarcely remained in England for a twelvemonth before it was again called abroad. It returned home on the 27th June, 1856, and was at once sent to the camp at Aldershot to recruit and shake off the rough and ready habit of soldiering that it had acquired in the trenches, and again return to the parade smartness that had distinguished it before the commencement of the war. No sooner had it again reverted to its normal condition than the rough work of campaigning was again cut out for it, consequent upon the outbreak of the Indian Mutiny, and the demand for troops in Asia. The battalion embarked for India on the 21st July, 1857. It was not called upon to render any conspicuous services in suppressing the rebellion, but though it had so recently served in the field, when

tranquillity was restored, it was not allowed to return to England. It had to perform its time of service in India, where singularly enough it was now employed for the first time in its long career. Occupying different stations, with the usual monotony of garrison life in India, until 1863, the battalion was called into the field, when the war broke out on the North-west frontier. In the autumn of 1863 the Fusiliers joined the Ensafzie field force, and took part in the defence of the Sungahs at the Umbeyla Pass. The right wing of the battalion, under Colonel Martin, also took part in the attack and storming of the Conical Hill and destruction of Lalloo on the 15th December, and also in the action at Umbeyla, and the destruction of the village at the foot of the Bonair Pass on the 16th, which ended in the complete rout of the enemy, and the submission of the Hill tribes next day. From this service the battalion returned to the Bombay Presidency, where it remained without any noteworthy occurrence until the left wing was sent to Aden, the right wing remaining in Bombay. This arrangement, held until November, 1870, when the regiment was ordered home, after thirteen years' foreign service. The right wing left Bombay on board H.M.S. Euphrates on the 24th November, and taking up the left wing at Aden, proceeded to Alexandria, where the two wings were transferred to H.M.S. 'Serapis,' which left Alexandria on the 12th December, and arrived at Portsmouth on Tuesday, Dec. 27th. The battalion disembarked at Portsmouth next day, and took at once quarters in the Anglesea Barracks, vacated by the 1st battalion, 25th. The battalion is now stationed at Aldershot.

The 1st battalion of the Royal Fusiliers took part in the Autumn Manœuvres of 1872, along with its old comrades in glory and toil, the Royal Welsh; and well did the Fusilier battalions sustain the reputation that they have achieved and sustained in each of the wars where their country's standard has been unfurled. Their ranks are yet filled with men who are worthy to tread in the footsteps of those immortal soldiers, whose wonderful courage carried the terrible heights of Albuera, and turned the tide of battle, where it began to set strongly against them on the no less terrible heights of Alma; and in the Royal Fusiliers England will find a regiment as proud, as strong, as ready to do or die, to endure and suffer as were they who clung to the mighty fortress of the Russians, until it crumbled in their grasp, and left them as their forefathers were always wont to be left, the triumphant conquerors of all who dared to meet them in battle. And thus closes the record of the long and honourable career of the Royal Fusiliers, in peace, which, we pray, may never be broken; in prosperity, which we hope may never be alloyed; in glory, that can never die while the tale of England's might and majesty shall continue to astonish the world; but above all, in the full certainty that should they ever be placed again in battle array, the deeds of the past will be a guiding star that will lead to deeds not less bright in the future.

“ESPRIT DE CORPS,” IN ITS RELATION TO REGIMENTAL DECORATIONS AND SOUBRIQUETS.

The affection with which a sailor regards his ship, or a lover his mistress, fitly represents the feeling which soldiers have for their respective regiments. And this feeling which soldiers and sailors may be said equally to possess surpasses generally that of the lover, in so far, that while time only causes the love of the former to become more intense, it often has an opposite effect on the affections of the latter. “Esprit de Corps,” like wine, improves by age, becoming, as years roll by, more generous, more mellow, and more nourishing. To attempt to describe, however, this consciousness of superiority, which causes all soldiers to believe that the British Army is not only the bravest and the best in the whole world, but the particular corps—nay, the particular troop or company—to which each belong is more courageous and smart than any other, would be too difficult a task for us to undertake. We all know that this feeling exists, and we all equally know that it is a feeling which ought to be cherished and maintained by every possible means that is likely to have the desired effect. Hitherto, no effort has been spared to keep alive, by honours emblazoned on the regimental standards, by particular facings, and notably by the regimental number on forage-caps, shoulder-straps, and coat buttons of our infantry, this sensibility of pre-eminence of their particular corps over all others. Hence we find that many of the regimental *soubriquets* form puns, which cause the men in them to aspire to an excellence above that of their fellows, by styling their corps by names, which are often a play of words upon the numbers or letters forming the number of their regiments. Thus the 2nd are the “second to none,” the 5th the “fighting fifth,” the 6th the “saucy sixth,” the 20th, 22nd, 30th, 44th, and 55th, are called respectively the “two tens,” “two twos,” “Triple X’s,” “two fours,” and “two fives,” while the 40th Foot revel in the name XLers (Excellers), and the 51st the Kolis—that word being formed of the initial letters of the words composing their second title—King’s Own Light Infantry.

With such facts before us, it was certainly no easy matter to believe at first the rumour that Mr. Cardwell intended to do away with in future the regimentally-numbered shoulder-straps, that have for years adorned the tunics of our infantry. But this is not all, the numbers and other decorations on the buttons are to be done away with as well, while a more recent order intimates that regimental numbers for forage caps will no longer be supplied from the Military Stores at Pimlico. This is certainly military reform with a vengeance, and as Mr. Cardwell doubtless means to be thorough in his work of improving the dress of the British

soldier, why need he stop at numbers or buttons? Facings to tunics and red-piping to overalls are all extra expense, and could be done away with, with even less danger to the *morale* of the Army than what he has not hesitated to do in other things. And for that matter, why not do away with uniform altogether throughout the Service? put our soldiers into workhouse or prison garbs, and so manage to lower the Army estimates still more by the usual cheese-paring but ineffectual means. This false economy we believe to be the true cause of the Secretary for War's suicidal fancy; it being a well known fact that in order to show an imaginary reduction in the yearly estimates, the army stores have been allowed to waste away until none are left in stock; for it stands to reason if the usual issue continues, and fresh purchases are not made to replace the outgoing materials, that the time comes when there is nothing to issue; hence the present stir about buttons, shoulder-straps and cap numbers.

To show that our surmise is not at all a visionary one, we direct the reader's attention to the following figures taken from the Army Estimates of the last four years:—

	Materials to be provided. £	Manufactured clothing to be pro- vided. £	Remaining in Store avail- able for use. £
1869—70 . .	397,200	436,568	119,000
1870—71 . .	350,442	384,439	80,000
1871—72 . .	422,454	557,893	Nil.
1872—73 . .	420,633	460,055	Nil.

Here we have an apparent increase in the yearly expenditure for clothing, taking the two years 1869—71, and comparing them with 1871—73; of £292,386. But when we look at the value of the reserve of clothing, which should be in store to meet any emergency, we can at once perceive the culpable hollowness of a system which, pretending to expend more money annually to secure our soldiers' efficiency, in reality leaves them in a state too dreadfully like the state of the French army for us calmly to contemplate. So far as supplies go, should a war break out, the nation would find itself in a worse plight than even France did on the outbreak of hostilities between that country and Prussia. It will probably be alleged that the prices of all articles as well as of wages has gone up, which would more than account for any difference; but for an answer to that we have only to refer to the average cost of clothing per man in the infantry for the last three years. In 1870—71, the clothing of each private of infantry cost the country £2 17s. 0d.; in 1871—72, this was reduced to £2 15s. 0d.; and this year it is £2 14s. 6d. Again, the clothing of a private of cavalry in the line, which was £3 18s. 0d. in 1870—71, is, in 1872—73, only £3 5s. 0d. The Staff Corps also show a reduction, so we have the strange paradox to explain that the clothing of soldiers should in two years have cost the State

about £300,000 more than it did in the previous two years, while the clothing of the men individually cost much less. This inconsistency, we assert, is only explainable on the supposition we have already named, which is, that our government, in order to cover their large and in many cases useless outlay of public money, have been making use of the reserve stores, which had been allowed to accumulate for a provision to meet the emergency of a war. And the clothing is no solitary case, as for instance a reference to page 43 of the last Army Estimates informs us, that this year there would be £358,827 less expended upon small arms, gun-powder, torpedos, &c. than there was last year. As for powder barrels, we cannot imagine why, when there has been no money expended either on their purchase or repair for so many years, that they should appear at all in the Estimates.

With the foregoing facts before us, we must believe that Mr. Cardwell's new dodge is simply another *ruse* to lower the estimates for the coming year 1873—74. His party, of course, cares little for the efficiency of the Army, or the honour of the nation; all they strive for is to retain office at any hazard, and they foolishly fancy that a few thousand pounds, scraped from the clothing of our private soldiers, will help them in the fight which they know now is imminent. We trust, however, that the sense of the country will not permit the love and sublime faith that all soldiers have for the corps to which they belong, to be undermined, and probably destroyed by any party praying to be kept in office, either now or in the future.

To find a parallel case for the Secretary for War's conduct we must turn to our criminal army for one. In it, when a member is convicted of an offence and committed to prison he loses his individuality; he is no more a man, but a masked figure; has no longer a name, but a number. And Mr. Cardwell almost appears as if he was seeking to send our soldiers to a lower depth even than this, for is he not striving to obliterate the numbers of the regiments to which each of them belong? Were it not for the consoling thought that he cannot obliterate the history of the past at the same time as the numbers of their regiments from the men's minds, or prevent the deeds done on battle fields abroad by those who had belonged to the same corps, from living again and again in their memories, the injury he threatens to inflict would be much more serious than it is. Fortunately, the recollection of these achievements, despite Mr. Cardwell's efforts to suppress them, will outlive him and his ideas, and both in verse and story will our young soldiers hear how their elder comrades had—

"Like the ocean's mighty swing,
When heaving to the tempest's wing,
They hurled them on the foe."

The glorious traditions of the past of every regiment are, it should be remembered, now as well known to civilians as to soldiers.

Few of the former as they pass one of the latter in the street, but look to see what corps he belongs to, and should it be a man, say, of the 5th or 77th Foot, they might remember how Napier tells of these two regiments' distinguished conduct at El Boden; "how they, the 5th and 77th, two weak battalions formed in one square, were quite exposed, and in an instant the whole of the French cavalry came thundering down upon them. But how vain, how profitless, to match the sword with the musket! To send the charging horseman against the steadfast veteran! The multitudinous squadrons, rending the air with their shouts, and closing upon the glaring squares like the falling edges of a burning crater, were as instantly rejected, scorched, and scattered abroad, and the rolling peal of musketry had scarce ceased to echo in the hills, when bayonets glittered at the end of the smoke, and with firm and even step the British regiments came forth like the holy men from the Assyrians' furnace."* Is it nothing, we ask, to be able to call forth such recollections as these to our civilian brother's minds, thoughts, be it remembered, that would have no existence but for the numbered shoulder-strap, button, or forage cap. In the same way the figures 52 decorating the uniform of some other soldier, tells the spectator at once that he belongs to the regiment which at Waterloo, by lapping a French column in a wave of fire, did so much service to the fortunes of that day on the British side. Or if a dragoon passed with the letter and word 2 D adorning his shoulder-strap, would not those who saw it think he might be one of the men who on that memorable 25th October—over 18 years since, not only charged the Russian host of cavalry, but answered "Jock Millar's" command "Rally the Greys," adding (as if the whole had been done in the drill ground at York or Cahir) "Face me"—by forming up in the midst of the enemy, as if on parade at home. And yet but for the number on the shoulder-strap, the passers by would not know his connection with the corps who Kinglake describes as "Those truculent Scots, who had cut their way in without speaking, were now hurrahing whilst they fought."

It must be kept in mind that the value of such splendid deeds of arms is not confined to the local advantages which result from them at the time, but are examples of what daring bravery has accomplished, to all generations to come. Sir John Moore, in Egypt, told the 42nd Highlanders to "Remember your fathers," and at Corunna the same general, addressing the same regiment, bade it "Remember Egypt." Yet this very pride Mr. Cardwell is striving to destroy, evidently considering that a few pounds is of far more value than a motive which has carried the British arms with an almost unvarying success for centuries in every part of the globe. Only a few in a regiment, however well that regiment may have behaved in action, can receive tangible rewards for

* Napier's Peninsular War, v. 4, p. 240.

gallantry ; for the rest, the remembrance of the glory gained must be the only reward, as medals do not have the effect they are supposed to do. Therefore *esprit de corps* must be maintained, and this cannot be done if all regiments are to be levelled down to the one common standard.

That *esprit de corps* is greatly fostered by even such slight matters as shoulder-straps, facings, and buttons, no one but a War Office official of the stamp of a gentleman, who could send the regimental colours by a common carrier, would ever think of questioning, and with a hope of even convincing Mr. Cardwell and some of his Pall Mall advisers, we will just run through some of the regimental soubriquets, and when possible give their derivations.

Some regiments have got their designations from the colour of their clothing, like the Royal Horse Guards, better known as the "Oxford Blues," the first part of the name originating from Aubrey de Vere, Earl of Oxford, who commanded the regiment in 1661. Similarly, the 5th Dragoon Guards took the name of the "Green Horse," and the 7th Dragoon Guards the "Black Horse," from the dark colour of their clothing. The 1st Dragoon Guards style themselves "The Kings," the 2nd Dragoon Guards are better known as the "Queen's Bays," the 3rd Dragoon Guards are the "Princess Charlotte of Wales' Own," the 4th Dragoon Guards are the "Royal Irish," and the 6th Dragoon Guards the "Carabineers." Ask a man of the 1st Dragoons what regiment he belongs to, and he will at once reply, "The Royals;" a man of the 2nd Dragoons would answer "The Greys," of the 8th and 3rd, the "King's Own;" 4th and 7th, the "Queen's Own;" 5th, the "Royal Irish Lancers;" 6th, the "Inneskillings;" 9th "Queen's Royal Lancers;" 10th, "Prince of Wales' Own;" 11th, "Prince Albert's Own," and so on. The Artillery are the "Royal Regiment," and if one of their officers did not put the prefix of "Royal" to his word of command when calling a troop or battery to "attention," the chances are that the men would not obey him. The Engineers are also "Royal," and as proud of the designation as their brethren of the guns. Our brigades of Foot Guards are equally proud of their separate designations, and a "Scotch Fusilier" would no more dream of saying he was one of the "Coldstreams," as one of the "Grenadiers" would wish to belong to either of the others.

In the infantry the badge, motto, regimental colours, and the national war-cry of the men have all given soubriquets to different corps. We have already noticed some of these, and as we cannot go through all of them, we will take a few haphazard to illustrate our remarks. The 3rd Foot, or "Old Buffs" gained their appellation from theirs being the first regiment whose belts were made of buffalo-leather. Another name it rejoices under is the Resurrectionists, on account of its reappearance, and not much the

worse, after, as it was thought, having been completely annihilated by the Polish Lancers at Albuera. The 31st Foot, from wearing a similar uniform to the 3rd, is styled the "Young Buffs." The 7th are of course the Fusiliers, while the 8th are known as the "King's Hanoverian White Horse," from wearing on their colours the White horse of Hanover. The Fifth Foot, in addition to the name already mentioned, are known as well by the soubriquet of "Old and Bold," and at one time had the honour to wear a white plume in their shakoes, when all other regiments bore a red and white tuft on the front of their hat-caps. This honour was gained from their conduct at Morne Fortunée, in the island of St. Lucia, where they took from the enemy enough white feathers to decorate the heads of the whole regiment. When white tufts became the rule in 1829, the 5th were allowed to wear a feather half-red and half-white, the red uppermost, instead of the plain white feather. The 9th Foot are better known as the "Holy Boys," from having sold their Bibles in Spain for drink, and the 11th from being nearly destroyed at Fontenoy, Ostend, Salamanca, and elsewhere, have been termed the "Bloody." The 1st Foot gained the name of Pontius Pilate's Bodyguard, in consequence of one of its members, in 1637, disputing with a soldier belonging to a Picardy regiment as to which of their corps was the oldest. It was then the "Regiment de Douglas" of the French service, and the Picardy man having, in proof of his regiment's antiquity, boasted that it found the guard over the Holy Sepulchre on the night after the Crucifixion, the Scot wittily replied, "Ah, had we been on duty, we should not have slept on our posts." This regiment is also called the "Royal Scots," from having formed the body-guard of the Scottish kings.

The 2nd Foot gained celebrity as the "Paschal Lambs," it having been raised in 1661 for the defence of Tangiers, which had constituted a portion of the dower of Catherine, Infanta of Portugal, on her marriage with Charles II. of England; and as the Paschal Lamb was the distinguishing badge of Portugal, it was borne in the corner of the colours of the regiment. It has been named also Queen Catherine's regiment and the "Sleepy Queen's," the latter from having, at Almeida in 1811, allowed General Brennier to effect his escape, by Barba del Puerco. When the 1st Madras Fusiliers became the 102nd of the Line, the 2nd Foot found a number of volunteers for the former, which on that account is also called "The Lambs."

The 20th Foot, besides being known as the "two tens," was formerly termed the "Minden Boys," from the distinguished part they took in that battle. The 21st bore a nickname from wearing grey trousers in 1678, when Charles, fifth Earl of Mar, was colonel; it then acquired the soubriquet of the "Earl of Mar's Grey-breeks." The 33rd, besides being known as the "Duke of Wellington's Regiment," is also the "Havercake Lads," and the

38th the "Pump and Tortoise." The 41st, long known as the "Invalids," are now better known as the "Welsh Regiment," from having some years ago been nearly recruited from the Principality. Many of those regiments which took part in the American War of Independence gained honourable and deserved titles from deeds of gallantry then performed. The 28th was there dubbed the "Slashers," from their bravery at the battle of White Plains, October 28th, 1776, when, on their ammunition being expended, they used their sword bayonets with wonderful effect. The 46th gained there the name of "Surprisers," from having surprised Wayne's Brigade on September 20th, 1776; and the 62nd that of the "Springers," on account of its rapid pursuit of the enemy after the action of the Trois Rivières in 1776. The 10th Foot was also given this title of "Springers" in consequence of its having always been ready for action whenever called upon.

The 50th, from its dark facing, acquired the name of the "Dirty Half Hundred"—a sobriquet that was wiped out at Vimeira, when under Colonel Walker it was worthily re-christened the "Gallant Fiftieth." The 42nd, better known as the "Black Watch," acquired this name from the dark-coloured tartan they wore on being embodied, and we may add that they still wear. Their sombre appearance procured them the Gallic name of "Fricudan Dhu" or "Black Watch," as soldiers at that time had often to act as police as well. The 56th are designated the "Pompadours," on account of its facings in 1756, when the regiment was raised, being of a crimson or puce colour, called at that time Pompadour, after its introducer, the mistress of Louis XV. The 57th, from the extraordinary appetite for fighting it displayed at Albuera, earned the name of the "Diehards," the 58th are known as the "Steelbacks," and the 60th, now known as the "King's Royal Rifles," first distinguished themselves as the "Royal Americans." In 1813, the 85th, through the commanding officer, Colonel Cugler, bringing so many of his officers to courts-martial, the Commander-in-Chief broke up the regiment, and formed it afresh from officers and men of other corps, a circumstance which has given to it the appellation of "Elegant Extracts." The 86th are the "Royal County Downs," the 87th the "Faugh a Ballagh," *anglice* "Clear the Way," and the 88th—the Connaught Rangers, or, as Sir Thomas Picton named them, the "Devil's Own." The 89th, which had acquired during the rebellion of 1798 in Ireland the unenviable title of "Blaney's Bloodhounds," from the skill the men displayed in tracking the insurgents after Humbert's defeat, has since gained a more pleasing title, namely, the "Rollickers," presumably the result of the conviviality and good fellowship of its members.

We have here only strung together those corps we can remember bearing separate distinctive titles; but there are few, if any, that have not another appellation besides the numerical one.

Both, however, are prized alike, the one being regarded as the supplement of the other ; therefore, if either is affected injuriously both must suffer. If uniformity is what Mr. Cardwell wants, let him begin at the top of the tree ; let him take the three regiments of Life Guards ; convert them into heavy dragoons, and, when that has been effected, we will give him credit for the possession of a zeal and ability that we should be very sorry to think he has at present.

Having said so much about the soubriquets of regiments, it may not be out of place to speak of their nationalities. As may be imagined, it does not follow now-a-days for a Scotch corps to be composed entirely of Scotchmen, or an Irish one of Irishmen, any more than that the 28th Foot need not all hail from Gloucestershire. Still, some regiments do preserve their original distinctive characters more than others—the 42nd, for instance, which was composed of nearly all Scotchmen ; there being 611 of them, and only 13 Irishmen and 30 Englishmen besides, at the time Sir Patrick O'Brien got a return from the War Office, giving the number of English, Irish, and Scotch in the British Army. In the 71st (Highland Light Infantry) there were 683 Scotch, 25 English, and 18 Irish ; the 72nd (Duke of Albany's Own Highlanders) had 646 Scotch, 242 English, and 67 Irish ; the 74th Highlanders, 576 Scotch, 84 English, and 71 Irish ; the 78th Highlanders (Ross-shire Buffs), 509 Scotch, 21 English, and 25 Irish ; the 79th (Cameron Highlanders), 611 Scotch, 51 English, and 31 Irish ; the 92nd (Gordon Highlanders), 810 Scotch, 105 English, and 48 Irish ; and the 93rd Sutherland Highlanders, 642 Scotch, 30 English, and 16 Irish. The Irish regiments are mostly quite as national as the Scotch are, and, strange to say, the Royal Horse Guards Blue are composed principally of Scotchmen. The following are the total numbers, distinguishing their nationalities in the various arms of the service :—

Household Cavalry—940 English, 172 Scotch, 93 Irish ; Cavalry of the Line—11,661 English, 1,091 Scotch, 2,429 Irish ; Royal Horse Artillery—4,192 English, 330 Scotch, 899 Irish ; Royal Engineers—3,024 English, 1,108 Scotch, 630 Irish ; Foot Guards—5,604 English, 604 Scotch, 108 Irish ; Infantry of the Line—71,262 English, 10,233 Scotch, 33,812 Irish ; Army Service Corps—1,827 English, 260 Scotch, 333 Irish ; Army Hospital Corps—481 English, 68 Scotch, 199 Irish. Grand total—117,701 English, 15,885 Scotch, and 44,192 Irish.

The British soldier has never thought much of the odds to which he would be opposed, and rightly or wrongly he too often undervalues the strength as well as underestimates the ability of the enemy. Yet we should prefer him having these feelings to possessing others of an opposite description. We would rather have him despise the enemy a little than fear him over much ;

make him feel as the lines of the poet described when he wrote ; what if—

“ They come as fast as mountain deer ;
We'll drive them back as tame.”

To keep this feeling of trust in his country, its religion and its liberties, no surer method could be adopted than by encouraging that love of his regiment in the British soldier's heart, so as to make it superior to aught else ; and if the contrary is wished for, no better plan could be tried than the one which Mr. Cardwell is now, we believe, prepared to carry into execution. We hope, however, that he will pause before he commits so great a mistake, or that Parliament will effectually prevent him from carrying out so mischievous an idea.

THE NORMAN INVASION AND THE ENGLISH ARCHERS.

BY MAJOR W. PRIME JONES.

At a time when military affairs, and especially those relating to the possibility of a hostile descent on our shores, have attracted, and still command, a more than common share of public attention, it may not be beside the mark to direct that attention for a brief space to the first and (those of the Romans under Cæsar and Plautius excepted) only really military invasion, as distinguished from the national immigrations of the Saxons and Danes, of which this island has been the theatre.

The first and most important of the facts connected with this Invasion is that which relates to the time taken by the Normans to land their forces when once arrived in the offing. It has been objected that the account given in the Chronicles of William's disembarkation, when received in the light of our Crimean experience, as set forth by Kinglake, is hardly credible ; it being stated that the armament appeared on the coast off Pevensey on Thursday morning, the 28th of September, and that the troops were not only landed but equipped, and on the move towards Hastings on the 29th. A remarkable instance of celerity, for although William's army can hardly have been so strong as the chroniclers assert, if the number of his vessels—700, minus four, be correctly given. Nevertheless, his numbers must have been great, and likely to have required very good management to get them landed in any safe and reasonable time ; still it might have been effected in the time stated, if the disembarkation, as was probably the case, was carried out somewhat as follows :

In the first place, we must remember that there was no opposition. The English Army was away with Harold in the North,

acting against the Norwegians, while the fleet had gone, either to London or to the westward to revictual. The Normans therefore had no interruption to dread, and were enabled to take their measures in ease and security. Their fleet had sailed with a fair wind, and there can be but little doubt but that it was arranged and drawn up in proper divisions. It would steer for Beachy Head, the first visible land, and if it approached the shore at the time of flood tide, which was probably the case, it would be set to the eastward, past Eastbourne and Langley Point, where the Army would find the shore of Pevensey Bay from the Castle to Bulverhythe, the most convenient place to effect a landing. One of the De Ashburnham's (no doubt a Norman favourite of the Confessor,) then resided near Pevensey, and as he gave William much valuable information after the landing and previous to the Battle of Hastings, it is highly probable that he had been some time before in communication with him, and indicated Pevensey as the place most suitable for his purpose, situated in a part of the country with which he was himself well acquainted.

The landing place being thus selected, the Norman ships would come in at the top of high water in a line abreast, and be beached on the strand between, as we have said, Pevensey and Bulverhythe. Then all things being previously ready, the horses would be bridled and hoisted out with the ordinary tackles and guys; the men in their coats of mail at the same time leaping into the shallow water, carrying their arms on their shoulders, and their saddles and horse furniture on their heads; each man then taking his horse by the bridle, and leading it to where the standard of his own troop would be set up. The rubbing down their horses, saddling them, and mounting the advance guard and scouting parties, would be quickly accomplished, and a disembarkation thus conducted might well, we believe, have been completed in the parts of two days. For we are to recollect that very little baggage, beside what they carried on their backs, would be required by the rough and ready soldiers of the eleventh century. The choice of Pevensey shows clearly a previous intelligence with parties well acquainted with the country. For had the fleet gone farther to the eastward, the only feasible point at which to land would have been Guildford level, near Rye, where an advance from the shore would have immediately entangled the Army, composed as it was, for the most part, of cavalry, in the woods and thickets of the Andredswold Forest. But very different from the actual easy and rapid operation would have been the case had the English fleet appeared while it was being effected. Then we may well suppose the expedition would have terminated in a disastrous failure. In fact, unless William had sure information as to where the English fleet was gone, and how long it might probably be absent—and we have no knowledge that he had any such—the whole enterprize was one of immense risk. But such is war! there are times when everything must be risked if the object

sought is to be gained. But it is the extreme risk that William ran that more than anything convinces me that the entire enterprise was a last resource, and that he had hoped to have obtained the Crown of England by the consent of the people, and the assistance of Harold.

The landing of the Normans thus quickly and easily accomplished is hardly a counterpart of what may be expected in any future Invasion, but it points out the necessity of being ready to interrupt an enemy's landing, by means of our ships, for a small land force might then complete his overthrow; while the subsequent conduct of Harold teaches us to encounter him, if once on shore, at some advantageous inland position, and not to rush rashly forward to attack him on the coast itself. One or two more facts connected with the Battle of Hastings we will now shortly notice.

At the Battle of Stamford Bridge, Harold is said to have had a strong force of cavalry; but at Hastings, he appears to have been altogether without it. How came this to pass? were they disabled by their attacks on the Norwegian spearmen, or were their horses knocked up by the wonderful march from York?

Again, it has been remarked that little has been said of the Norman archery, notwithstanding the supreme importance of its action in the battle. Now it is true that one arrow did indeed do more towards deciding the victory than any other weapon there used; but it was a mere chance shot. We do not hear that the Normans were more skilful in the use of missiles than their French or Flemish neighbours. At any rate, they were not archers—like the English long-bowmen; a body who owe their origin to different times and different circumstances.

In Harold and William's days no such body existed, either in Normandy or England; the Anglo-Saxons and Anglo-Danes had decided their contests with sword and battle-axe, and William was in his time too strict, as well as too just and politic a ruler to allow either the opportunity or the circumstances to arise in his new kingdom, which should give birth to such a body.

The English longbowmen, the real founders and guardians of the rights and liberties of the people of this country had their origin in the troubled times of William Rufus, Henry the First, and Stephen; when the boldest and most vigorous of the population took to the wolds and forests to defend their properties and their rights against the encroachments of the great Norman Barons, who, having filled their castles with bands of mercenaries, maintained them by the plunder of their less powerful English neighbours. The bow was the natural weapon of men warring in an enclosed and woody country (as the rifle would be in the same country in our own time), and the pitch of perfection to which they carried the use of it, we know from the pages of Froissart, Monstrelet, and others, and by the poems and novels of Walter Scott, who, however, certainly falls into an error in making Hubert, in *Ivanhoe*, talk of

his grandsire "drawing a good bow at Hastings," when probably it was a cross-bow, or one that he drew to his breast and not to his ear.

The longbowmen speedily became the best, indeed, the only infantry in Europe, and their marvellous skill and undaunted courage and vigour rendered them the equals, in every warlike achievement, of the Norman nobles, the leading race of the known world. With the establishment of this infantry began the rise of English freedom, and it exemplifies that peculiar political sagacity inherent in the Normans, that they so soon recognized the warlike qualities of their English and Danish fellow-countrymen, and hastened to ally themselves with them in the great Constitutional struggle against the power of the Angevin kings. Those articles in the Great Charter specially securing the agricultural implements of the yeomanry and peasantry from seizure for taxes, &c., are a sufficient proof of this alliance, and that the necessity for it was well understood by the nobles. The probability of such a stipulation being made in those times, in favour of the peasantry in France, would have been small indeed.

The estimation in which the English Infantry was held by foes as well as friends is well described by Scott, where he makes Reginald Front de Bœuf say: "these are no Pagan Saracens, noble Sir Brian, or craven peasants of France, valiant De Bracy, but English yeomen, against whom we shall have no advantage, save that we derive from our arms and horses, which will avail us little in the glades of the forest." And he was right. The career of a horseman would speedily be brought to a close by the trees, ditches, and morasses of the wood or wold, when, if he escaped the cloth-yard shaft shot into the size of a French Crown, he might consider himself a fortunate man. This the Norman Barons quickly discovered, and it was to the respect taught them by this "astonishing infantry," as Napier terms their posterity fighting at Albuera, that we owe the course of English History, so different from that of the surrounding nations.

To the exploits of that infantry during the subsequent ages, history bears ample record. Frenchmen, Spaniards, the Celtic inhabitants of these islands, all fell before the unerring aim of the English archer; while our Anglo-Danish kindred, the lowland Scots, owe the loss of many a bloody fight to the bows and bills of the bold yeomen.

Atlieury, Falkirk, Cressy, Poitiers, Otterbourne, Agincourt, Vernueil, and Flodden, their last and crowning exploit, testified to the prowess and skill of this great and most fortunate organisation, fortunate in the maintenance of liberty at home, fortunate in the overthrow of enemies abroad. To the fame of the English yeoman was owing the preservation of constitutional right under the Tudors, even after their special weapon had been laid aside. The memory of their past skill sustained them till the time came to prove them-

selves as potent with push of pike or charge of bayonet, as they had been with brown bill or cloth-yard shaft. We will conclude with a few remarks having reference to the present times. The progress of the military art has once more placed in the hands of us, the descendants of the archers of old, an arm requiring the like dexterity, the quick eye, and steady hand such as they possessed. The modern rifle is a weapon especially suited to the country and people of England. A country enclosed as of old, a people addicted to all pastimes requiring skill. And as the yeomanry of old were in every possible manner encouraged to perfect themselves in handling the bow on the village green, at the social or political gathering, so ought the Authorities in the present day to endeavour, by every means in their power, to make the practice with the rifle general throughout the country. Of this they may be assured, that every man master of the weapon of the day is already three parts of a soldier. The individual who can hit the bull's eye at 600 yards, or knock over a man at 800, only requires the knowledge which a few weeks' training would give him to defend this—in a military point of view—strong country, even as the archers who picked up their knowledge and skill in arms at their pastimes would have defended it if invaded—a contingency which their mighty reputation did so much to prevent—and as they *did* defend the honour and renown of that country when they received the French knights with showers of arrows right in the face at Agincourt, or dispersed the clans by a volley at Flodden.

A report is abroad that the existence of the present rifle organisation, which resembles so much that of the archers of old, is beginning to be looked upon with an unfavourable eye, and that either it will be broken up or greatly reduced in numbers. Let us trust that nothing so dangerous or absurd is contemplated. It was not the fifteen thousand mercenary Genoese cross-bowsmen at Cressy who could be hired and added to the regular feudal army, but drafts from the ten times ten thousand archers existing in England, that not only decided that particular victory, but saved the land throughout all the wars of the time from invasion at home and defeat abroad.

And so in our own time. Every man trained to the knowledge of the use of arms, is an unit added to the power of the nation, certain to be available in the hour of need. Although nothing like what might have been done has been effected, still it is well to consider what has been accomplished. Whereas before the formation of the present force of Volunteers, there were not, we may well suppose, thirty thousand men in all England who had ever fired a musket or had the slightest knowledge of military matters; now they may be reckoned by hundreds of thousands.

THE GERMAN CAVALRY.

BY CAPTAIN SPENCER.

The official account of a great war, written almost immediately after the events it describes, must possess a more than ordinary interest and value, alike to the historian and the military student. This becomes doubly so, when it is written by a man who had taken an active part in the contest.

In the present instance, we are indebted to Major-General Besser for one of the most interesting accounts we have had as yet of the German cavalry, and what it did during the late Franco-German War, more especially at Vionville and Mars la Tour, on the memorable 16th of August, 1870; and although the account is a mere sketch in the January number of the "*Berlin Jahrbücher*," there is proof sufficient to warrant the fact that the German cavalry of our day has lost nothing of its old Seydlitz renown. Still, it was fully recognized by the great Prussian strategist, Von Moltke, that this arm of the service never could again perform the distinguished part it had hitherto done before the invention of the breech-loader.

On this supposition it was decreed by the Minister of War that, for the future, cavalry should be rather employed in carrying out a military reconnaissance and covering the march of an army, than in taking an active part in line, and charging infantry, armed with such a disastrous weapon as a breech-loader.

"It is very true," says the writer of the article in the "*Jahrbücher*," that cavalry divisions covered the army during the march as with a veil. Still, we have seen a portion of it at Spiechern, Wissemburg, and Wörth, as if by an irresistible impulse gallop to the front, and lead the way with a hurrah that can never be forgotten by those that heard it. In addition to this, if we only call to account the multifarious duties it had to perform, more especially in the very distinguished part it played as the protector of that wonderful Etappen system by means of which the army was not only fed, but supplied with all the material of war; it is surprising how a force that never numbered more than between sixty and seventy thousand men had been able to affect all that it had done, and with so little loss in men and horses. This is even still more remarkable, when we remember the risks our cavalry had to encounter in the fastnesses of the Vosges Mountains, at all times swarming with Franc-tireurs."

To form a still more correct idea of how great are the advantages to be derived, during a war, of having always at hand a well-organized cavalry force, it will be necessary to observe that each army corps in the German army has its own cavalry contin-

gent, whose duty it is to be always able to furnish the requisite intelligence as to the whereabouts, position, and fighting qualities of the enemy about to be attacked, together with a map or sketch, giving, as far as it is possible, all the bearings of the district, where the coming battle is likely to be fought.

As may be supposed, to obtain the specific items of intelligence, the cavalry force attached to each army corps is obliged to make frequent dashes of small detachments across the enemy's line, always at a great risk, and requiring more than ordinary bravery, hardihood and intelligence in the men, as well as in the leader.

As an example of bold daring in this particular service, we have only to point out to the reader the reconnaissance made at the commencement of the late war by Count Zeppelin, of the Wurtemberg staff, with only three other officers and three dragoons, from Lauterburg, in the direction of Wörth. This small party of daring men having observed that the district, from some cause or other, seemed to be unoccupied by the French, pushed on till they reached Niederbron, several miles beyond Wörth. The following day, while in the act of taking some slight refreshment at a roadside inn, they had the misfortune to be surprised by a detachment of French soldiers on their way to Wörth. In vain they fought, and retreated with the desperation of men who knew that there was no hope for them, but death or the dishonour of being taken prisoner. It was, however, of no avail; they were all killed or taken prisoners, with the exception of the leader, Count Zeppelin. Among the former was a gallant young Englishman, Lieutenant Winslow, the first officer of the German Army that died the death of a hero in defence of the German Fatherland.

The enterprize, nevertheless, was so far successful, since it enabled Count Zeppelin to carry with him to the German headquarters all the necessary intelligence respecting the whereabouts of the French Army, its strength, position, and capabilities of defence.

As might be expected, the success of this first attempt in the art of carrying out a military reconnaissance within the enemy's own particular domain, led to the sending forth of another party on a much more extensive scale. Consisting of a company from each of the 4th Bavarian and 4th Baden Regiments, together with a squadron of the Baden Body Guard Dragoons, these brave fellows were so successful, without even the loss of a man, in destroying the telegraph, cutting up the railways, and in levying contributions, in all the little towns and villages they happened to pass through, that from henceforth a reconnaissance in the land of the enemy was regarded more as a sort of pastime than a danger.

It is scarcely necessary even to allude to what the Uhlans had done in this particular branch of the service. How a mere handful of these daring light horsemen, during their extraordinary career,

were accustomed to take possession of towns and cities, and impose upon their inhabitants whatever contributions they thought they could readily pay, and without much clamour; and this continued, with scarcely an interruption, till the end of the war, at the same that the very name of an Uhlan became associated in the mind of the ignorant peasantry with something more than human—a sort of demon who feared neither God nor devil.

When we contrast all this courage and enterprise, on the part of the German soldier, with the absurdly feeble demonstrations made by the French in the same line of throwing out, now and then, a military reconnaissance, it required no prophet to predict what must be the fate of France when the formidable legions of Germany got a firm footing in the interior of the country. Accounts like these flying, as they do, with the rapidity of lightning through an army, have an immense influence in depressing or raising the courage and spirit of the troops. An instinct of superiority is at once established in the minds of the soldiery on one side, and that of inferiority on the other, which is certain to show itself when they become pitted against each other on a regular field of battle.

Perhaps we have nothing more striking during the whole of the Franco-German war, at least, we have nothing that more clearly shews the superior qualities of the German soldier of 1870, when contrasted with his French opponent, than the gallantry of Colonel Von Pestel, who, with only one battalion of the 40th regiment and three squadrons of the 7th Lancers, not only held Saarbruck in face of two French divisions, but absolutely drove them out of the St. Arnual forest—a position which, had the French only held, as they ought to have done, however great might be the risk, how different might have been the result of the battles of the Vosges, which now succeeded each other with a rapidity fatal to the power of France, and unexampled in the history of any former war.

It would occupy much more time and space than we can now conveniently spare to follow General Besser in the glowing description he has given us of what the German cavalry did during the late war, more especially at Vionville and Mars la Tour on the ever memorable 16th of August, 1870. How instrumental it had been in turning the tide of victory at a time when it was very doubtful which side was to be the winner. The French, as if to recover somewhat of the prestige which they saw was passing day after day to their enemy, the German fought with the desperation of men who had made up their mind to conquer or die. In addition to which, they had the advantage of being placed in a position strong by nature and art—that is to say, in all that could be done in the way of entrenchment, together with a strong stockade, wherever it was found to be necessary.

All this, however, was found to be of little avail when the hour

of trial had come ; nothing could resist the daring of the German cavalry. The order had come from head-quarters that an attack must be made on such and such a position ; the reserves had not yet come up. A diversion was necessary, if it was for nothing else than that of drawing the attention of the French Commander-in-Chief to a part of his position which he had hitherto considered as safe from any such danger. Consequently he was compelled to weaken his line of battle by sending fresh troops to the menaced district. No doubt, fearing on the spur of the moment that the German reserves had come up, and that they were about to carry into practice one of their famous flank attacks which had already, and on so many occasions, proved so disastrous to the French Army.

We have only to read General Besser's description of one of these cavalry attacks to be reminded of the ever memorable charge made by our own brave fellows at Balaclava, and which could not be executed by any body of men, either infantry or cavalry, who were not thoroughly in hand, and felt confident that their own hardihood and prowess would carry them through the ordeal with honour to their country and credit to themselves.

Ever on the watch while under the cover of some undulation in the village or forest in the vicinity, they never sallied forth on their dangerous mission except when the signal of attack was given, and then with a bound, says General Besser, which shook the earth beneath the horses feet and a hurrah made the woods and dells echo and re-echo again ; and again they poured upon the enemy, cutting their way through every obstacle, whether in the shape of an infantry square, or a squadron of cavalry, until they reached the artillery, and which they instantly silenced by cutting down the men, which in more than one instance they would have carried away as a trophy of their victory, had they not in their turn been forced to make a hasty retreat on seeing the near approach of a large body of the French reserves who were hastening with all possible speed to the scene of action, and this continued—says General Besser—from early dawn to dewy eve on the ever to be remembered 16th of August, 1870—the only exception being that while one party of the German cavalry sought rest and time to recruit itself from the fatigue and losses it had sustained, the other took its place.

In our age of the mitrailleuse, and the equally dangerous breech-loader, it might be supposed that a cavalry attack of this kind would be attended with fearful loss, but such in reality is not the case ; and to prove the truth of our assertion, we copy verbatim an extract from the official *Jahrbücher*, shewing the exact number of men employed and the losses sustained.

Die effectirstärke deran der Schlacht von Vionville und Mars la Tour theilgenommenen Deutschen Cavallerie.

Betrug an Pferden	12,000
Der Verlust an getödteten und Verwundeten	90
Offizieren	
Mannschaften	1,320
Pferden	1,795

It is true that nearly every fourth officer was either killed or wounded, but this is always to be expected in a cavalry attack, from the circumstance of their being far more exposed as a leader to the weapon of the enemy.

Without exception, General Besser, as well as all the other writers on military affairs in the *Jahrbücher*, do full justice to the bravery displayed by the French on the hard-fought battle-field of Vionville and Mars la Tour. It was the last effort of a brave, high-spirited people to recover something of that long and dearly-earned military prestige which they saw with grief and no little mortification was fast passing away. They saw that the conquerors of Continental Europe, during the glorious days of the first Napoleon, were now about to be conquered in their turn by the descendants of a people who they were accustomed to regard as inferior to themselves, and by an army they had been taught to look down upon as nothing better than a mere Landwehr, and which would dissolve itself into a mere shadow the moment it came into contact with a French army. In short, the battle of Vionville and Mars la Tour may be regarded as the last and the only one that was fought with anything like the vigour and audacity displayed by the French during the great wars of the first Napoleon.

We cannot conclude our present article without once more alluding to "Der Ehrentag der Deutschen Cavallerie," the never-to-be-forgotten 16th of August, 1870. Perhaps of every other cavalry attack on the French positions during that eventful day there was none that was so completely crowned with success as that made at about half-past twelve, by Von Redern's Light Cavalry Brigade. The sun was blazing in the heavens, there was not a leaf stirring, consequently the heat was almost overpowering, still that did not delay for a moment the fearful carnage that was then raging over the devoted fields of Vionville and Mars la Tour.

On this occasion the gallant Redern, at the head of his cavalry, not only drove the French cavalry that was superior to him in numbers completely out of the field, but forced a large body of infantry to seek shelter from the fury of the attack behind their entrenchments.

"At that moment," says General Besser, "Marshal Bazaine, with the whole of his staff, must have been either cut down or taken prisoners, had there been a German reserve to assist the brave fellows in the capture. As it was, the hasty approach of a large body of infantry, supported by horse artillery, and the

murderous mitrailleuse, obliged the victors to relinquish the expected prize and in their turn seek safety in flight."

The attack of the Sixth Cavalry Division, under the command of Duke William of Mecklenburg-Schwerin, which took place about half-past one, and that of Bredow's Cavalry Brigade at two o'clock, were equally successful, as was also that of the half-past five attack, in which the First Guard Dragoon Regiment was solely engaged with the French Infantry. Although somewhat mauled at first by a discharge from the chassepot and the mitrailleuse, the battle was nevertheless continued till it was relieved about seven o'clock by Barby's Cavalry Brigade, supported by the Tenth Hussars, a portion of the Thirteenth and Sixteenth Dragoons, and two squadrons of the Second Dragoon Guards.

During this attack the French Cavalry is said to have displayed great bravery and no little skill in the use of the sabre and the lance, and although the men were much inferior to the strong-limbed robust Germans of old Prussia, they maintained their ground till they were relieved just in the nick of time by a strong body of infantry that had been ordered out from their entrenchments.

The last attack of the German Cavalry, consisting principally of the Sixth Division, took place about eight o'clock, but by that time the Germans might have been said to have the field entirely to themselves, as there was nothing now to be seen but that most deplorable of every other scene—a host of beaten soldiers of every arm, horse, foot, and artillery, flying for their lives, in every direction, amidst the hurrahs of the victors, the booming of artillery, and the rush of the pursuing conquerors.

"Taken altogether," says General Besser, "in whatever light we may regard these repeated attacks of our cavalry, at all times made under great disadvantage and no little danger, in our day, of the chassepot and the mitrailleuse, we must all come to the conclusion that our cavalry have lost nothing of the old dash, spirit, and enterprise that so eminently distinguished the horsemen of Prussia above those of every other country during the grand old times of our own Frederick the Great. That our gallant brothers of that arm of the service deserve well of the fatherland, we all admit, and no one can deny that the timely aid they rendered to the great bulk of the army, by their repeated attacks, contributed not a little to the great and important victory we obtained on the hard-fought fields of Vionville and Mars la Tour."

General Besser, as well as all the other German military writers whose works we happened to have met with, all agree in saying that the material of the French cavalry was exceedingly good, but as it had been taught to fight rather in dense masses than to perform carefully the work of reconnoitring, as the Germans had done, that arm of the French service, when compared with the German, was of little use to the French army in protecting it from

being so often surprised, while its real advantage was almost on every occasion thrown away in dashing but hopeless charges.

It would appear that the French Generals, among their other deficiencies, did not understand the value of employing the cavalry, as their opponents, the Germans, were accustomed to do. Again, as if to make matters still worse, Marshal Neil, together with nearly all the French Generals of note, had, previous to the war, come to the conclusion that, in face of such a destructive weapon as a breech-loader, it was far better, when it could be done without peril, that both cavalry and infantry should act on the defensive. Hence originated that system of passive defence so pernicious in its moral effects to the soldier, and led the way, as much as anything else had done, to the repeated victories of the Germans; and although the French, by pursuing this tactic of their Marshals, destroyed their enemy, as it were, by wholesale, while lying *perdu* behind their entrenchments, yet we may say that on nearly every occasion they allowed themselves to be turned, made no resolute counter attack, and hardly ever failed to end the struggle by abandoning the contest altogether.

"It is true," says Wartensleben, in his very interesting work on the late Franco-German war, "that our opponents, the French, frequently executed partial counter attacks with great resolution and no little bravery, but being invariably made on some position more or less isolated on the field of battle, they had but a momentary effect. They also, as if in imitation of what we Germans were accustomed to do, threw out now and then swarms of skirmishers; it was, however, painful to observe how little the men were under command in a system of attack and defence, where so much depends upon a leader, who knows how to handle his men and take advantage of every inequality on the battle field, to shelter them in case of need. It was, however, in the offensive, above everything else, that they showed their utter carelessness and contempt of the first principles of modern war. Whenever they did take heart and leave the fastnesses of their entrenchments, and assume the offensive, it was invariably done in the old and now obsolete system of stiff lines and columns.

"In short, our opponents," continues the above-named Prussian officer, "seemed to be altogether wrapt up in the traditions of the past, and to regard every deviation from the tactics employed by their great leader, the First Napoleon, as an innovation that would be certain to lead to defeat and utter ruin. Impulsive and imaginative in everything they do, perhaps they also thought that the shadow of a great name would be certain, in the hour of peril, to indicate what they ought to do, and guide them on in the old path of victory. Be this as it may, it was easy to see from the first that so much false confidence, combined with a singular want of perception, together with so many other shortcomings and imper-

fections in the organisation of the French army, would be certain, come what might, to be attended with disastrous results."

Now, as we all know that nothing happens in this world without a cause, and that nations as well as individuals are the arbiters of their own fate, Moltke, Blume, Wartensleben, Schell, Bogelawski, as well as that great Russian Todleben, men as famous for the ready use of the pen, as their well-known ability as military men, all agree in saying that the character of the French people had become entirely changed within the last half century or more. The descendants of the heroes that had carried their arms from one end of the continent of Europe to the other, and gave their laws, as it were, to an astonished world, became, on the downfall of the great chief who had so often led them to victory, only known to their contemporaries for their love of money, luxury, indolence, and a sort of braggadocio, when speaking of themselves, which rendered them intolerable to every man who was not a Frenchman.

"The fact of it is," says Blume, "they lived, and continued to live, in a sort of fool's paradise, and they might have gone on dreaming, had they not been awakened from the pleasing vision by the news of the battle of Sadowa, and the downfall of Austrian influence in Germany. It was then, and only then, that they saw before them a mighty power, in place of what had previously been division and weakness—unity and strength—where dissension and want of enterprize had formerly prevailed.

Still, with a fatality for which it is impossible to account, there was little or nothing done in France in the way of military preparation, during the four following years that intervened since the battle of Sadowa, to the declaration of war in 1870. No doubt they still believed themselves the first military Power in the world, and, having once made a name, thought that the terror of it alone would be sufficient to gain all that they wanted, by a little pressing. Why, then, trouble themselves—they, the elect among the nations—about such common-place affairs as the drill, the goose-step, and all the other slaveries of a soldier's life? "Thus we found them," says M. Von Wartensleben, "as little acquainted with either the theory or the practice of war, as if the entire people had just awoke from a trance of half a century. They had marshals and generals by the thousand, officers of every grade, without number, rifled cannon, the most perfect of all breech-loaders—the Chassepot—to say nothing of the much-vaunted mitrailleuse; but they knew not how to turn them to the best advantage, or accommodate their action, so as to fall in with the change wrought by these modern inventions."

After reading these accounts of the Prussian military historians on the late war, would it not almost seem as if the evil genius of France had smitten its people with a blindness which rendered them incapable of seeing the depth of the gulf into which, day

after day, they were falling. Then there was that fatal and unaccountable obstinacy of theirs in pursuing a system of military operations, opposed to that of their more practical and rightly-judging opponents, the Germans. To be more fully assured of this, and how great were the deficiencies of the French of our day, in any one of those warlike instincts which, in days gone by, elevated their fathers to the highest place among the other great military nations of Europe, we cannot do better than wind up our article by giving an extract from the journal of that able military historian, Captain Bogelawski, when he says:—

“Thus, in the management of each of the three arms—Infantry, Cavalry, and Artillery, and in their combination for united action—the German tactics showed the most marked superiority over those of the French. In the one there was the expression of deep thought and careful experiment, founded on sound principles, careful training, and how a war, to be successful, must be carried on; while that of the other was only known to the world by its false views, shallow notions, and a singular blending of traditional routine with a want of experience, or how to take advantage of the exigencies of the moment.”

The writer might also have added that there was a total want of education among the great bulk of the soldiery of France—that grand pivot upon which may be said to have rested as much, or perhaps more than anything else, the extraordinary victories obtained by the Germans in France; and until that is rectified, and the people are encouraged to employ themselves in a more manly exercise than that of idling away their time in the demoralizing coffee-house, there will be but small hope of the present generation seeing France again take her place among the great Powers of the world.

THE DUTCH ARMY IN 1871—72.

Some of our German military contemporaries have been busying themselves of late with the defensive resources of the little kingdom of the Netherlands—Holland, whose ports are the natural *entrepot* of Transatlantic commerce to 15 millions of Germans, whose rich colonial possessions are susceptible of a development which she, unaided, is powerless to give them.* From these disquisitions we gather some curious particulars of the existing Military establishments of our Dutch neighbours, which we believe

* *Neue Militarische Blätter*, No. 2, November, 1872. “Is Nederland verderdigbar?” an article which has been noticed in the *Patrie* and other French journals.

to be reliable. We are indebted to the December number of the *Jahrbücher für die Deutsches Armee* for the annexed details:—

The land forces of the Netherlands are composed of—1. The army. 2. The Schutterij, or train-bands. The marine and colonial forces are *not* included in the above.

The army consists of volunteers and militiamen; that is to say, it is composed, nominally, of volunteers, but these being barely sufficient to complete the *cadres*, the quotas of the several corps are made up by militiamen.

All Hollanders not under 5 ft. in height, are eligible as volunteers between their 18th and 36th year. The engagement is for 2 years under arms, and a further period, not exceeding 6 additional years, nor extending beyond the 40 years of the volunteer's age, in the army-reserve. In 1871, volunteers formed about 18 per cent. of the total strength of the land army.

The total strength of the enrolled militia is about 55,000 men. The armed contingent is about 11,000 men, which it is now proposed to increase to 13,000.

All male Hollanders not legally entitled to exemption are entered on the ballot-rolls of their respective parishes, on the 1st January of the year in which they will attain the age of twenty. If drawn, they serve under the same conditions and on equal terms with the volunteers. The exemptions are, 1, those who draw blanks at the ballot of their year. Those under 5 ft. in height, or who are unfitted for military service by bodily infirmity. Only sons. Military and naval cadets. Students of the Army Medical department. Those who have served, or are serving, on 1st January of the year in question. Brothers of half-brothers of one who has completed his term of service either in the army or marine in a grade under that of a commissioned officer. The clergy, schoolmasters, and students of divinity are exempted by proclamation from year to year. The militiamen are called up in May, receiving five days preliminary notice of the same from the civic authorities of their town or parish. Substitutes are permitted. The duration of the training of militia recruits is fixed from time to time by the King. If they show sufficient capacity, and are in the 2nd class in shooting, they are kept six months under arms, and are then allowed to go on furlough, being called up for drill for six weeks every year. Those who have completed their period of active service either as volunteers or militiamen, are merely mustered once in twelve months by a commissary.

The army comprises the following corps and departments:—

The War Department.—Consists of 70 military and 40 civilian officials.

The Head-Quarter Staff.—Field-Marschals and General Officers, Adjutants, Generals, personal staff of the King and Princes of the Blood Royal.

General Staff.—Consists of 6 superior and 8 subaltern officers.

Provincial and Garrison Staff.—21 superior and 26 subaltern officers, and 39 non-commissioned subordinates.

Personnel of Military Administration.—Includes the *personnel* of the Intendance, Clothing and Supply Department, and the Director of Military Hospitals.

Infantry.—The infantry has its own staff of duty and departmental officers, composed of 2 superior and 7 subaltern officers, in addition to those employed in the War Department, and at the Military Academy at Breda. The total strength of the infantry staff is 38 officers and 4 horses.

The infantry consists of—

1 regiment of Grenadiers and Jagers, composed of 2 battalions of Grenadiers, 2 ditto of Jagers, and a depôt.

8 regiments of infantry, consisting each of 4 field battalions and a depôt.

1 battalion of Instruction.

1 general disciplinary depôt.

2 companies of hospital corps.

The field battalions of Grenadiers and Jagers, and of the infantry regiments have 5 companies each. The depôt of the Grenadier-Jager Regiment is composed of 1 company of Grenadiers and 1 of Jagers. The depôts of the infantry regiments consist of 5 companies, the first four of which in each regiment would be formed into a reserve battalion in the event of a mobilisation. The battalion of instruction is composed of 4 companies. The disciplinary depôt has 2 companies. The strength of the several companies is as hereunder :—

	Officers,	Non-Com. Officers and Rank and File,
In the Grenadier field battalions, each company is composed of . . .	3	188
In the Jager field battalions . . .	4	189
In the Grenadier Jager depôt . . .	4	208
In each infantry field battalion . . .	3	188
In each infantry depôt . . .	4	203
In the battalion of instruction . . .	6	150
In the disciplinary depôt . . .	4	20
In the hospital corps . . .	3	162

Making a total force of 1,005 staff and regimental officers, and 42,004 non-commissioned officers and rank and file. Of the latter 2536 are volunteers. About one-fifth of the whole force, exclusive of officers, is under instruction, and the rest on unlimited furlough.

Cavalry.—The cavalry staff consists of two superior and one subaltern officer, besides those in the War Department, and at the Military Academy at Breda, making in all, six officers and eleven horses.

The cavalry is composed as follows :—

Four regiments of Hussars of four squadrons each, with a reserve-squadron and a dépôt-squadron.

With the reserve-squadron of the 2nd Regiment is a riding-school and a veterinary-forge; with that of the 4th Regiment is a training-school for recruits.

The strength of the squadron is as hereunder :

	Officers.	Non. Com. Officers and Gunnery.	Horses.
In each Field-squadron . . .	5	201	126
„ Reserve do.	3	109	46
„ Dépôt do.	5	148	90

The Reserve-squadron of the 2nd Hussars numbers altogether five officers, 116 non-commissioned officers and troopers, and sixty horses; making a total force of 178 officers, and 304 officers' horses, and 4,081 non-commissioned officers and troopers, and 2,222 troop-horses. Of the non-commissioned officers and troopers about one-fourth are at present under instruction, and the remainder on unlimited furlough. The cavalry numbers 1,608 volunteers in its ranks.

Artillery.—The staff of the artillery, exclusive of officers at the War Department and Military Academy at Breda, consists of nine superior and nine subaltern officers, twenty-eight magazyn-musters, forty-eight magazyn-under officers, and six armourers. In all, fifty-four officers, fifty-three subordinates, and four horses.

The artillery consists of—

One regiment of field-artillery, composed of fourteen field-batteries, one dépôt, and two companies of artillery-train, and one do. for departmental purposes. Each field-battery has four guns in peace time, and six in war.

Three regiments of garrison-artillery, of fourteen companies. One of these forty-two companies is told off for torpedo-duties, and one for purposes of artillery instruction.

One regiment of horse-artillery, of four horse-batteries and one dépôt; each battery having four guns on the peace establishment, and six in war time.

One corps of pontooners of two companies; one for train and flying-bridge duties, the other for boat-service.

The strength of these several batteries and companies is as hereunder :

Field Artillery.

	Officers.	Non. Com. Officers and Gunnery.	Horses.
Field companies	4	152	41
Artillery train	4	233	34
Departmental do.	2	90	38
Dépôt	3	138	43

Garrison Artillery.

	Officers.	Non. Com. Officers and Gunnery.	Horses.
Garrison companies	4	158	
Torpedo company	4	178	
Instruction do. . . .	6	226	

Horse Artillery.

Horse-batteries	4	136	84
Depôt	4	83	78

Pontoon Corps.

Field companies	4	207	
Depôt	4	107	

Engineers.—The engineer staff consists of thirteen superior and five subaltern officers, besides the officers at the War Department and the Military Academy, and forty non-commissioned officers; in all seventy-two officers, forty non-commissioned officers, and one horse.

There is one battalion of Engineers, composed of five companies of Sappers and Miners, of four officers and 195 men each.

The total Engineer force thus consists of ninety-five officers, 1,020 non-commissioned officers and Sappers and Miners, and two horses. It includes in its ranks 356 volunteers; one-tenth of the effective, exclusive of officers, is present under instruction, and the rest on furlough.

Military Police.—Consists of two divisions, the first numbering six mounted officers, and 103 mounted and 132 dismounted provosts; the second, four mounted officers, seventy-nine mounted, and forty-eight provosts.

Medical Staff.—The medical staff of the Army consists of ten superior and 124 subaltern officers (surgeons), and one superior and twenty-five subaltern officers (apothecaries), besides an undetermined number of students in surgery and pharmacy.

Veterinary Staff.—Consists of nineteen veterinary surgeons, ranking as subaltern officers.

The above-given numbers show the strength on 1st July, 1871.

On the same date the strength of the train-bands, as fixed by the law of 1868, was as given below.

It should be premised that the train-bands, known as the "Schutterij," or Burgher-force, are designed in the event of war, to replace the regular army in home garrisons.

Every domiciled inhabitant, not otherwise serving, is liable to Burgher-service from his twenty-fifth to his thirty-fifth year—the first five years in the Schutterij, or active Burgher force; the last five in the Rustinde-Schutterij, or Burgher reserve. The Burghers are divided into three bans, or classes—the first comprising unmarried men and married men without families; the second, married men with small families, and others, whose social position

and calling admit of a longer or shorter absence from home; the third ban includes all other Burghers.

The active Burgher-force is only mustered in parishes or townships having more than 2,500 inhabitants.

All Hollanders between the ages of nineteen and fifty not serving in the Army or Burgher force, are eligible for the Landsturm, or *Levée en masse*, in the event of invasion.

The strength of the active and reserve Schutterij in the several provinces is given as follows :

Guelderland.—Active force, two battalions of infantry, and nine independent companies; four companies garrison artillery. Inactive force, sixteen battalions.

Deventer.—Active force, four companies of infantry; inactive, three battalions.

Lemburg.—Active, one battalion and five independent companies of infantry; inactive, eight battalions.

South Holland.—Active, nine battalions and twenty-three companies of infantry; three companies artillery; inactive, twelve battalions infantry.

Utrecht.—Active, one battalion and three companies infantry, and three companies artillery; inactive, three battalions.

Zealand.—Active, seven companies infantry, one ditto artillery; inactive, eight battalions.

Overijssel.—Active, fifteen companies infantry, one artillery; inactive, eight battalions.

Friesland.—Active, one battalion and nine companies infantry; inactive, eight battalions.

Groeningen.—Active, one battalion and six companies infantry, two companies artillery; inactive, seven battalions infantry,

North Brabant.—Active, two battalions and thirteen companies infantry, and one company artillery; inactive, twelve battalions.

North Holland.—Active, six battalions and sixteen independent companies of infantry, four companies artillery; inactive, seven battalions; making in all a force of 65,327 of all ranks, of which 25,294 are active burghers.

The Dutch army—exclusive of the Schutterij—numbered, on 1st July, 1871, 60,000 of all ranks, from which, the regulations assume an army of 43,000 men could be placed in the field in the course of six weeks. Adding thereto the Burgher force, we have a total force for home defence of 100,000 men.

But, it must be remembered that the Burgher force is fully one-half composed of the inactive battalions, which exist but in name, and that a moiety of the remaining or active half is never trained, as the members belong to parishes or townships containing less than the requisite number of inhabitants. Add to these difficulties, in respect of the train-bands, the comparatively small sum hitherto voted annually for the military budget, which, nevertheless, amounts to about four *gulden* per head of the population; and the

unpopularity of military training amongst all ranks of the Dutch people ; the inferior stamp of men brought into the service by the system of volunteering and hiring substitutes ; and we have an explanation of the *fiasco* understood to have attended the attempts at mobilization in the summer of 1870, which was in striking contrast with the promptitude of the simultaneous mobilization of the Federal Militia in the German-speaking cantons of Switzerland, of which we gave an account some months since.

To those who know the thoughtful considerations which has long been given to educational matters in the Netherlands, and the large number of excellent elementary works which have appeared, and are still constantly appearing in the Dutch language, the following statement given authoritatively in the *Neue Militärische Blätter* will appear sufficiently remarkable :

“ Of the latest number of enrolled militiamen in 1871, 14.4 per cent. were unable to read and write, and in some provinces, the proportion of ‘totally uneducated’ amounted to twenty-eight per cent. of the militia strength.”

THE LUSHAI EXPEDITION.*

Nearly simultaneous with the late news from India of another disturbance among the Lushais, appears Lieut. Woodthorpe's highly entertaining and instructive book, descriptive of a campaign undertaken against these doubly interesting tribes ; interesting as much from their strange ways and customs as from the series of complications which have taken place between us and them for the last forty years. Believing only in one law, the law which takes all from the weak to bestow it upon the strong, the moment they came into closer relationship with civilisation, they began to feel they had come in contact with a still stronger power than themselves. But old habits, be they good or bad, are difficult to get rid of, so all our instruction, either by force of arms, or by using more conciliatory measures, could not teach them to avoid making descents upon Cachar villages, killing a score of their inhabitants, and carrying off as many more into captivity ; for all this is highly commendable in Lushai life.

Those raids were usually made to procure heads to bury along with the body of some noted chief or other who had died at the time, and as they did not confine such expeditions to their own territories, but carried them into ours, they had to be punished for their conduct. A raid made in December, 1870, by the Lushais down upon the gardens of Alexandrapur resulted in the murder,

* The Lushai Expedition, 1871—1872, by Lieut. R. G. Woodthorpe, R.E.

among others, of Mr. Winchester, and the carrying away of his little daughter into bondage. It was against these Howloos and Lyloos that the operations of the force under General Brownlow were directed, and which succeeded in rescuing Mary Winchester.

In July, 1871, as they had not profited much by former teachings, it was determined that the Lushais should have a much severer lesson, and Lord Napier of Magdala having succeeded at last in overcoming the Government's usual objections, whenever unusual expense has to be incurred—a far more effective force than had hitherto ever been sent against these troublesome highlanders was organised and despatched. What this force saw, accomplished, and went through, Lieut. Woodthorpe has told us in a genial graphic style that carries the reader from the beginning of the book to the end of it, without ever having to read a line that he might have missed, or a page but that was most interesting. We are introduced to the Manipur Hockey ground, as well as to the game which has now become naturalised in many of our dragoon regiments at home and abroad. We are introduced likewise to camp-life on the hills, to the different tribes who dwell there, and to their manners and customs. The Lushais, we find, are a race of inveterate, we might almost say, incessant tobacco smokers, for not only do women smoke as well as the men, but children smoke before they can walk alone. Tobacco water (that is, water which has been impregnated with the oil of tobacco and the fumes of its smoke) is looked upon by all as a great luxury, and when friendly Lushais meet, they exchange jars of tobacco water, taking a sip of the contents, with the same idea, apparently, that our fathers had when they exchanged snuff-boxes.

This, and other information as to how this curious people live; how they build, fight, eat, sleep, as well as how the expedition succeeded in the object it was sent to accomplish, is all given in a manner that makes it one of the pleasantest and instructive books of the season; one that may be read by all descriptions of people with equal pleasure and profit. In short, it is a book wonderfully well written.

FOREIGN SUMMARY.

Paris, December 24.

You have no doubt expected that the death of Napoleon III., particularly coming on us so suddenly as it did, would have been the great theme for our attention, to the exclusion of all others; but the very reverse has been the case. The news was received with what might almost be termed indifference, or, in one sense, with satisfaction. Not that there was any indecent expression of feeling,

or a word of actual reproach to be heard, but the idea seemed to spring up in most minds, that Imperialism, for some years to come, would cease to have a disturbing influence. Of course some very pronounced Imperialists speak of Napoleon IV., and the Empress as Regent, but the majority of the party, it is believed, regard these as mere names, that may or may not serve for a rallying cry at a future day. Imperialism, or Cæsarism, if you like, is, however, not defunct, and will assuredly put in its claims at the first apparently fitting season.

There is a wide-spread belief that, whenever the present "provisional" state of things comes to an end, the choice will be only between Monarchy and Anarchy; and when the believers in this say Monarchy, they mean Imperialism. They allege, with a very fair appearance of truth, that a Bourbon Monarchy, whether Legitimate or Constitutional, is quite out of the question, and that Society can only be "saved" as it has been before. Imperialism, according to them, is Monarchy in its best form, the form that gave twenty years of unexampled prosperity to France, and under which alone can the country recover its "just influence" in the world. Others may, and do remark, that under Imperialism France has sustained reverses and humiliations such as she never experienced before; but the Buonapartists reply, that these calamities have fallen on the country in consequence of its desertion of its duly elected Chief, and that safety is only to be found in the restoration of the Napoleon dynasty. As usual, there is much to be said on either side, but the question does not appear to press for a solution, and so, probably, will be left to solve itself; the solution taking the form of a military *pronunciamento*, at some time when least expected.

Ever since the resumption of its sittings by the Assembly, now three weeks ago, the famous Committee of Thirty, and its sub-committees, have been hard at work, so far as talking, and "interviewing" the President, are concerned, but as to real progress, in settling which is to be master, absolutely nothing has been done. A Constitution has been sketched, the chief feature of which, should it ever come into use, would be, to reduce "King Adolphe" to the state of a limited Monarch—far too limited, he thinks; and accordingly he fights against it with might and main. But the Right seem to be on the point of succeeding, and accordingly the Left Centre, headed by M. Casimir Périer, shows a strong disposition to join them.

As with you, we have an Educational difficulty, and M. Jules Simon has rather narrowly escaped a vote of censure. He is, of course, no favourite with the Right, and they seem resolved to drive him from office, if possible. He has, it seems, modified the educational programme for the higher public schools, and various orders of the day, dealing out more or less of censure on him, were acrimoniously debated. Bishop Dupanloup warmly supported the strongest of them, but the Government made a kind of Cabinet

question of it, as you would say in England, and M. Simon got off with something short, though very little short, of a vote that must have driven him from office. He was, however, very plainly told by M. Baragnon and others, that it was only Presidential influence that saved him, and a man of spirit can hardly keep in for any length of time on such terms.

Services were held in Paris on the day of the Emperor's funeral, which were very fully attended, although, of course, the chief personages of the Imperial party were then at Chislehurst; and they were repeated here two days ago. In Biarritz, and probably elsewhere in France, marks of sincere regret were displayed. In Italy it was the same; and the first proposition for a monument to the deceased comes from Milan. The Imperialists are naturally gratified at this, but, to judge from what they say, they are far more sensible of the sympathy shown by your people. The Government positively refused permission to any officer on active service to visit England on the occasion of the funeral, the War Minister curtly informing all whom it might concern, that three days' absence without leave constituted the crime of desertion. There are a good many hours, however, in three days, and the belief is, that several officers who happened to be stationed near the coast, found them quite enough for their purpose. Of the actual gathering at Chislehurst you probably know quite as much, if not more, than the President, for we smile incredulously at the statement that appeared in one of your London papers, that the blue blouses concealed a band of police spies. It is exceedingly probable that M. Pietri was not the only member of the old Imperial police present, but we have no idea that they were there in the interest of the Conservative Republic. Like his uncle, Napoleon III. had a rare faculty of gaining devoted personal adherents, and if some of these, though of very humble rank, should have followed him to his grave, their fidelity is deserving of praise, and nothing but an "advanced Liberal" journal would have ascribed to base motives the presence of men who apparently could ill afford the expense of the journey to England. But the same journal a day or two after treated its readers to an attack on the fatherless youth, under the title of "The Young Pretender and his Prospects," of which it is enough to say that it was quite as unmannerly and offensive as might have been expected, considering its source.

But though most people are disgusted with the coarse tone of the paper in question, there are others who are quite as little pleased with the extra-laudatory language of the rest of your press. "If he was," they say, "such an excellent friend to England, and really, as in the matter of free trade, preferred her interests to those of France, how was it that you preferred him to fall, and his country to be trampled on by the hordes of Bismarck, without stretching out even a finger to help either? Would it not look better, if your friendship had been rather more active two or three

years ago, or was rather less demonstrative now? There was once a time, when if you talked of friendship for any ruler, or any people, you were ready to back your words by actions befitting a high-spirited nation; what fatal influence has of late years prevented your doing so?" No doubt your statesmen have some very excellent reason for their "masterly inactivity;" but it would be just as well if they would produce them; for assuredly the opinion is gaining ground, that "peace at any price" is your policy, and that your alliance is no longer a thing to be desired. Believe me or not, as you like, but the fact is, that our people see with satisfaction the gathering clouds between you and Russia. They say, whenever the next war breaks out, you will not have a single ally; and the idea that you can contend, by your own unassisted strength, with the Czar, is scouted as a mere chimæra. We well remember, that even with our aid you did not fulfil the boast of Mr. Cobden, as to "crumpling up the Moscovite like a sheet of paper;" and we hold that circumstances are now far less favourable to you than when you made the attempt, almost twenty years ago.

Even if the Russians should turn out, as seems very probable, to have stolen a march on you, and, by a secret treaty with Persia, have done far more to menace your Indian Empire than if they had already gained possession of Khiva, you cannot "localize the war," and confine it to Asia. Of necessity, you must close the Russian fleets in the Baltic, or they will test your coast defences. You accomplished your object of a blockade in 1854 by hurrying off a half-equipped fleet, under Admiral Napier, but his ships were too large for him to do more. He had neither troops nor gun-boats, the expectation of your then Ministry being that Sweden would supply the one, and Denmark the other. The Admiral saw the monarchs of both countries, and they plainly told him that though they hated Russia, they had not sufficient confidence in England to throw in their fortunes with her. It is not likely, after your desertion of Denmark, that their trust in you is more robust; and as to your ships, they have now become so monstrous in size, that they could never come within striking distance of Cronstadt, or Sweaborg; they might as well remain at Spithead.

For some reason best known to himself, the Duke de Gramont, who was not so long ago the Imperial ambassador at Vienna, has stirred up no small commotion by his statements about help promised by Austria in 1870, in the war that was impending with Germany. There is every reason to believe that Austria not only was, but still is well inclined for another struggle against the supremacy of Prussia, could she only clearly see her way; and if the first two or three actions in the summer of 1870 had been French victories, she would have been with us, and the South, in all likelihood, would have followed her guidance. Denmark, too, would have been but too glad to strike in, with the hope of regaining the Duchies. But as things went otherwise, all these Powers

are now bent on explaining away every thing at which omnipotent Germany may take offence ; and as the Duke must have foreseen this, it is hard to tell why he should have chosen to start so "inconvenient" a subject. The mere pleasure of contradicting M. Thiers is a very poor excuse ; and after all, it is exceedingly unlikely that any evidence the Duke could produce would be any surprise to Prince Bismarck. He, no doubt, knew perfectly well that he was hated and distrusted by Austria, and that if she thought it safe to move against him she would do so. His safety then consisted in promptly shewing her his military superiority, and thus he justified the old saying, that one sword drawn keeps two in their scabbards. To the outside world, there is often mystery enough in the proceedings of statesmen, but your Lord Palmerston is my authority for saying that there are no secrets among diplomatists. They throw dust in the eyes of "own correspondents" and such, but they see clearly enough themselves. Such was the candid declaration that he once made in Parliament ; and few people will deny his knowledge of what he was talking about.

Two days ago three more Communists were shot at Satory. The President promised some time since that what may be termed political executions should cease, and the punishment of death should only fall on offenders against the ordinary laws. This would seem to have been the case on this occasion at least ; as the sufferers, named Benot, Decamp, and Fenouillat, had not attained to any celebrity under the Commune, but were convicted as incendiaries. Eleven more, who had been equally condemned to death, were fortunate enough to have their offences regarded as political, and their lives have been spared. It is hoped that we have seen the last of these executions, and that the remaining thousands of prisoners will shortly be annested. There has been ample time for public opinion to cool down, and it has come to be a very general idea that the majority have suffered quite enough ; soon the idea will be, that they have suffered too much. In a country where authority is so unstable as it has proved itself with us, it is dangerous to carry matters with too high a hand ; and part of one of La Rochefoucauld's maxims may well be borne in mind ; his advice is, "Live so with your enemy as if he may one day be your friend." He goes on, "and with your friend, as if he may one day be your enemy," a vile sentiment, which we are too much given to act up to, whilst forgetting the other and better.

It is a point of dispute between the President and the Committee whether he shall or shall not be at liberty to plunge into the debates in the Assembly, whenever he may think fit to do so. He has hitherto done this, and with marked effect ; but even his friends can hardly deny that he is likely to speak too often. The Committee seem strongly inclined to limit him, but he at all events will make full use of his eloquence as long as he can, and accordingly, last Tuesday presented himself, uncalled for, before the Committee on Petitions, and volunteered an explanation as to the expulsion of

Prince Napoleon. He took on himself the entire responsibility of the measure, and though he must allow that there was no law of exile for the Bonaparte family, he considered that it was implied in the vote of the Assembly which announced the downfall of the Empire. Beside this, the Prince was well known as an active man, and he could not remain in France without becoming the centre of a dangerous agitation. Therefore, having regard to the public tranquillity, he should maintain that he was fully justified in "requesting the Prince to retire," even if it could be proved that it was a straining of the law. He, however, did not think that it was; and he would advise the Committee to let the matter drop. In answer to a question from the chairman, he said he had no particular charge to bring against the Prince, but the presence of such a man must always be "disquieting." Buonapartist intrigues, it was known, were rife in Corsica, if not elsewhere, and it might be necessary to take repressive measures against persons, but more particularly against journals, that gave the title "Napoleon IV." to any one. As to the petition, that could very well stand over. This course the Committee agreed to, and thus endorsed the opinion of the President, that if the expulsion was not legal, it ought to be; but whether this attribution of an irresponsible despotism to M. Thiers will go unquestioned in the Assembly remains to be seen.

Such great pains are taken by the Prussian inspired papers to convince the world that the late changes in the Ministry are entirely to the liking of Prince Bismarck, that quite the contrary effect is produced. People fancy that they see in the "gushing" letter ascribed to the "faithfully devoted and grateful King," which accompanied the order of the Black Eagle, something like the over-politeness with which a troublesome associate is bowed out, with an affectionate admonition to take care of his precious self. The gift of some of our captured cannon to adorn the Prince's country seat is also looked on in the same light, and I believe there are plenty even of Germans who would be quite ready to give him unlimited leave of absence to contemplate them.

Prior to the reassembling of the Parliament, great pains were taken to explain to the public that the change in the cabinet had no political significance, but by some mismanagement the two inspired journals managed to contradict each other, and consequently neither was believed. The *Provincial Correspondenz* asserted that there was no intention of having a President of the Ministry, since Prince Bismarck declined to hold the office, and the *Staats Anzeiger* flatly contradicted this, alleging that from the very first Count Roon was intended for President by the King; and such he has been made, to the annoyance of the Liberals. Several of them sharply questioned Count Eulenberg on the subject when the Lower Chamber met, and he gave but an indifferent account of the matter. Of course he protested that Count Roon was merely the *alter ego* of

Prince Bismarck, who never had had, nor would have in future, a single thought of anything except carrying out the policy of the Chancellor.

These generalities, however, did not silence the more outspoken Liberals, as Virchow, who persisted in analysing the career of Count Roon to show how much he really differed from the Prince, "who was now such a staunch advocate of Liberalism." The Count had ever avowed the very sternest Conservatism; when he joined the Liberal Auerswald Cabinet ten years ago, he soon broke it up, and what then followed was known to every one. He thought events would now take a similar course, and that the Count would become Chancellor as well as President ere long. Such a change, to be sure, could not come about without the very highest sanction, but the favour of princes was an unstable matter, and it was not impossible that Prince Bismarck now felt it to be so. In vain Count Eulenberg denied that there was any ground for such a supposition; the Liberals still clamoured for "a more complete explanation," to be given by Count Roon himself. The new Premier had not yet appeared in the Chamber, and so the matter stood over, with the expectation of a "scene" when he should do so. Right or wrong, the Liberals declare that they have little faith in him, and they are understood to mean that the bills prepared under Bismarck's direction against the Roman Church shall serve as a test of his sincerity. If he pushes them forward in all their original vigour, and remodels the House of Peers to secure their passing, then he will be accepted as a "Bismarckite;" and, as the Spanish nobles used to say to their King, "if not, not."

Already an announcement has been made that "the more important" of these bills will be proceeded with, which of course implies that some will be abandoned; but the illiberality of even the most advanced Liberal ought to be satisfied with the provisions of three just introduced by Dr. Falck, the Minister for Ecclesiastical Affairs.

If their provisions could be carried out, the Prussian Legislature might boast of having done what the "Penal Laws" of England and Ireland, though in full vigour for more than two centuries, signally failed to accomplish. They would simply "efface" Rome. No country has as yet succeeded in getting the substantial direction of the education of young men designed for the Catholic priesthood, but one of these bills will attempt to do it, by insisting that all such candidates shall be educated only at the State Universities, and shall pass as rigid an examination in all those branches of knowledge which the Church regards as dangerous to faith, as those studying for any other profession. It is thought that the secular knowledge thus forced on the unwilling recipient will effectually guard him against the errors of Ultramontanism. But of even more pressing necessity than the education of future generations, is the reduction of the dangerous power of Roman bishops at the present day. They are to be deprived of much of this power, and what little is to be

left to them is to be exercised by themselves, in entire independence of the Pope, or any other non-German authority, and subject to an appeal to the courts by any one who conceives himself aggrieved. The State is to have a veto on all their appointments, and if they dismiss a priest they are bound to give the living to a successor with due University qualifications within a year; whilst the former incumbent has nothing but ecclesiastical censures to fear, and is encouraged to dispute even these. Penalties ranging from 10 thalers to 1,000 are to be incurred by the prelates for a variety of things that they now do every day; but money penalties are hardly applicable to Catholic ecclesiastics, and imprisonment instead could hardly be tried. A State with a few hundreds of them on its hands would be sorely troubled to know what to do with them. Another point is, that all vows of canonical obedience can be set aside by a simple declaration before a magistrate that a man no longer intends to observe them; and the same freedom of abjuring the obligations of ministers is given to the members of Protestant Churches.

In their mixed hatred and fear of Rome, these sweeping provisions are acceptable to the Liberals in general, but more moderate men consider this last "concession to free thought" as going altogether too far. They think it quite right to do all they can to sever the Catholic Church in Germany from Rome, but they object to see all restraint by the Protestant consistories over their ministers abolished. Rationalism, they consider, already prevails in their pulpits to an almost unbearable extent, and the license thus accorded would, they think, banish from them the profession of Christianity altogether. That, however, is not a consideration to trouble a German Professor who holds the seals of office, even though his title be "Minister of Religion."

The bills have been debated, and referred to a special committee, and Count Roon, by coming forward at the last moment with a declaration that he is fully determined to "resist the encroachments of Rome," has, *pro tem.*, established himself in Liberal estimation, and at least postponed the condemnation that Herren Lasker, Virchow, and others have in store for him, should he at last refuse to remodel the Upper House. He, however, has the reputation of having a will of his own, and if he does fall, is not likely to do so without a sharp struggle. Thus Liberalism, even with Bismarck on its side, is not yet master of the situation.

The press censorship prevents anything unpleasant to authority being given very plainly in German papers, but it is not difficult to see that Prussian rule is not popular in Hamburg or the other Hanse towns. The middle classes cannot forget that they once ruled themselves, and hence they would very naturally dislike the imported officials, even if these were models of integrity, urbanity, &c., which does not appear to be the general opinion. The Red spectre, too, in the shape of discontented workmen, troubles the good burghers all over the new Empire, and nobody believes that

the dreaded International has finally retired from business. On the contrary, the idea prevails that the Jesuits have its strings in hand, and are preparing a return blow for their expulsion; and the proposed high-handed legislation against Rome, even if acceptable to the North, which may be doubted, will assuredly be a stumbling-block for the South. Then there is an ill-concealed uneasiness about the state of health of the Crown Prince. It is months ago since he was allowed, in official prints, to be "slightly indisposed," and he is still at Wiesbaden. Of course, the reports on the Frankfurt and other Exchanges that his "slight indisposition" is changing into something serious, are denounced as "absolutely untrue;" but official denials go for little. Could they avail, people would dismiss as an idle fancy, the possibility of the relations between Berlin and St. Petersburg being unsatisfactory.

Yet, in spite of all official declarations, or perhaps in consequence of them, the idea prevails everywhere, and not alone with us, that Russia and the German Empire cannot go on much longer without coming to blows. I have already said, that we see with satisfaction Prussia expending our milliards in fortifications to secure her western frontier, as we see that she has no faith in the permanence of the present state of things. But we now also see her quite as busily engaged in securing her eastern frontier, though that would be a most unnecessary work, were she and the Czar such excellent friends as they profess to be. Still the fact remains, that the Russian press calls attention to the new works that are steadily in progress in positions where only Russian troops can be expected. "The Berlin Government," says the *Invalides*, "is reforming its system of fortification quite as vigorously near the Oder, the Wartha, and the Vistula, as on the Rhine and the Moselle. Glogau, Posen, Thorn, to name only a few places, are being remodelled, and converted into fortresses and arsenals of the first class. Why is this? We know not; but to provide against all eventualities, we must arm also." Most people have been of the opinion that Russia is tolerably well armed already; but when once such a course as she has so long pursued has been entered on, it may well be beyond any one's power to stop. Such, we imagine, will also prove the case with the new Empire, and a collision between the two can only be a question of time.

But we think here, that the Czar may have a war on his hands that more nearly concerns you ere this comes about. Count Schouvaloff is reported from Berlin as having declared that everything has been arranged in the most amiable fashion with your Ministers, and that there is no real "divergence of views" on the Central Asian question between your Cabinet and his. Possibly so; but that certainly is not the general opinion of your people, and they will never feel your Indian Empire safe, whilst they see Russia drawing closer and closer every year. Whether you really can arrest her progress, may be matter for debate. We certainly think

you cannot, single-handed, and the policy of "isolation" that you have of late pursued is certainly not calculated to secure you allies, should you suddenly discover that you want them. Yet if the report of a secret treaty with Persia proves to be true, you must either strike a blow, or give up the contest at once, and for ever. Your Indian Empire was gained by the sword, and is still mainly held by it, however you may flatter yourselves to the contrary. Public opinion is, perhaps, coming round to you, but it would turn readily enough to any other Power that seemed likely to dispossess you.

Now the treaty that Russia is said to have secretly made with Persia is just the spark that is wanted to kindle a conflagration. Her skilful generals once in possession of Khorasan, the Hindoo Koosh is turned, and you must again plunge into an Afghan war, if you mean to hold India.

Optimists may tell you, and tell you truly, that it is a very long distance from the Atreck to the Ganges, but the matter to be considered is, not the precise day when a Russian force may march into Calcutta, but the excitement that would be caused among the native population when they were once supposed to be on the move with that object. Hitherto, it has been possible to say, that Russia merely aims at establishing peaceful relations among the numerous Sultans, Khans, Begs, and what not of Central Asia; so your Manchester school has seen only a new opening for their cotton goods, and has lauded the Czar accordingly; but it is very doubtful if your Indian subjects have taken this view of the matter; and to think that they will look on the occupation of Khorassan (to be followed as soon as convenient by that of the rest of Persia, and as much of Affghanistan as can be laid hold of) as anything short of a direct invitation to rise against you, is sheer infatuation. If they succeeded in shaking you off, they might very probably find that they had changed masters for the worse; but that is a mistake that even enlightened Europeans have made before now.

I am well aware that the treaty in question has been denied, and the denial may be literally true. There are other documents beside formal treaties, either open or secret, known in diplomacy. It is to be hoped that your Parliament, which so soon meets, will elicit the whole truth, not be content with half, and will act up to its knowledge. We confess we are still sore on what we consider your desertion of us in the late war, but we at least do not desire your "effacement;" on the contrary, we trust at no distant day to see you, as well as ourselves, occupying your old position in the world.

Western criticism is commonly supposed not to penetrate Russia, as public notice is so very seldom taken of it. But it evidently is felt, and one of the inspired press very recently published what is styled the exact text of a treaty concluded only last summer with Yacoub Beg, by General Kaufmann, the governor of Turkestan.

Nothing can be more reasonable and proper than this document, and if we could only believe, either in its genuineness, or in the probability of it being observed, it would be an excellent answer to those who accuse Russia of greed of territory, or a desire to make her power felt on every side. Only unhappily, this is a doubting age.

A more elaborate vindication appeared lately in the *Official Messenger*, and was reproduced by the highly respectable Belgian press. As it has almost the character of a state paper, but probably has not been much seen in England, I think it well to give you a translation, with some slight condensation; you will see that it is especially meant for the enlightenment of your public men.

“ Since the empire has been obliged to take military measures against its neighbours to re-establish order and tranquillity in the Kirghise Steppes, which have belonged to it for a length of time, and which separated us from the Khanats of Central Asia, measures which placed us under the necessity of making considerable territorial acquisitions, several organs of the foreign press have begun to attribute to us plans of conquest directed against England, and said to be menacing for the tranquillity of the British possessions in India. Notwithstanding the frank and reiterated declarations of the Imperial Cabinet, and those no less reassuring of England, those versions were accepted by a large part of the public, and even in Russia. As soon as the-so-much-desired tranquillity had been restored in our Kirghise Steppes, and a certain administrative system had been established, our commerce with the Khanats of Central Asia considerably increased, owing to the relative security of the roads followed by the caravans. Until the taking of Tashkend that trade was almost exclusively in the hands of the Boukhars and the Khokhands; that is to say, of foreign subjects, who came to seek in Russia the goods of which they stood in need. As for our merchants, if by a rare chance they entered into the neighbouring Khanats, they were subject to all sorts of vexations, not only on the part of their opponents, the native dealers, but especially by the local governments. Therefore the necessity became absolute for changing a state of things so disadvantageous for our dealers and so little in accord with the dignity and power of Russia. Therefore, in 1867, at the time of the establishment of the General Government of Turkestan, the Imperial Cabinet drew up a programme for our ulterior operations in Central Asia, according to which a regular administration was to be introduced and order re-established in the conquered territories, and friendly diplomatic relations established with the Governments of the neighbouring Khanats, in order to obtain a complete equality of duties for the Russian and native merchants dealing with the Khanats. On the basis of that programme, all the efforts of Aide-de-Camp General de Kaufmann tended to produce an understanding with the adjacent countries and to develop these notions of civil organisation and ideas of legality in the acts of their Governments. The Khan of

Khokhand, owing to the geographical situation of his possessions, was the first to feel our moral influence and to convince himself that a struggle with Russia was impossible. Therefore he consented, after some negotiations, to the conditions which had been proposed to him relative to the freedom of commerce. After some hesitation excited by the party which desired war against this empire, Khou-doyar, Khan of Khokhand, in proof of his consent, affixed his seal on the 3rd February, 1861, to two copies of the 'mutual agreements' which had been sent to him, one of which was brought back to Tashkend. Thus was laid down the first basis of the understanding with the Khanat, and of the development of our commerce with it."

The "agreements" follow, which are quite unexceptionable in their way. The Emperor of China never seemed so anxious for the welfare of the "men from afar," whom he permitted to lay tribute at his feet: only, as I said before, this ill-natured world finds it hard to realize so much kindness presented at the point of the bayonet. The inspired writer goes on to say:

"Much greater difficulty was experienced in coming to an understanding with the Emir of Bokhara. When the first proposition was made to him to subscribe to the mutual engagements which only assured to our merchants the rights that his subjects had long enjoyed in Russia, he still dreamed of revenging himself for the defeat we had inflicted on him in 1866. While negotiations to that effect were going on with his envoy at Tashkend, in the winter of 1867-68, he was actively preparing for a new struggle with Russia. The campaign of 1868, however, rendered him reasonable enough to accept the conditions which were proposed to him, and which were similar to those agreed to with Khokhand. But that convention remained during some time a dead letter, until the period when the town of Karchi was restored to the Emir (November, 1868) and the province of Schakrisiaba (August, 1870), arguments powerful enough to convince the Emir of the sincerity of our desire to live on good terms with him, and not to extend our possessions."

Highly honourable and profitable conditions, given at length, were offered to the fortunate Emir, for the forbearance and generosity of the Yellow Khan, it seems are quite unbounded, and he was wise enough to embrace them without any useless delay; they would have been "imposed on him" otherwise. "They were sent from Samarcand on the 11th May, 1869. They bear the signature and the seal of General de Kaufmann I. The Emir, Seid-Mouzaphar, as a proof that he accepted them, affixed his seal on the 18th June, 1868, at Karchi. At the very period when we commenced negotiations with Bokhara and Khokhand we were proceeding to the establishment of regular and friendly relations between ourselves and Khiva; but all our efforts and repeated attempts did not attain the desired result, and only served to show the real tendencies of

the Khivan Government. We only asked for the liberation of certain Russians held as prisoners there. To those just and very moderate reclamations we received no answer at first, and then a refusal accompanied by absurd demands. Such a state of things could not last, because the tranquillity and order of our Steppes of Orenburg depend upon our relations with Khiva.

"We have to say a few words relative to the convention concluded in June last by the Governor-General of Turkestan with the present chief of Djita-Schara, Yakoub Beg. Until the year 1865 that district, that is to say, Chinese Turkestan, or the Kashgar territory, formed part of the Celestial Empire. In virtue of the Treaty of Peking of the 2nd November, 1860, that province was opened to our commerce, and we could have a consul at Kashgar. Yakoub Beg having seized this country, we could only tolerate him on condition that he should accept the engagements entered into with us by the Government he had overthrown. Much patience and trouble was required to obtain, not by arms, but by means of diplomacy, the recognition for our merchants of the right to traffic in all the towns of Djita-Schara. In the month of June of this year, Yakoub Beg at length accepted the conditions which were proposed by the Governor of Turkestan relative to the freedom of trade, and affixed his seal as a proof of his consent. They are identical with the conventions concluded with Khokhand and Bokhara." [So need not be further specified.]

"They were sent from Tashkend the 9th April, 1872, signed by General de Kaufmann I. Mouhammed Yakoub, chief of Djita-Schara, in token of his acceptance attached his seal on the 8th June, 1872. Reason exists for believing that the latter has sincerely accepted them, and that he will be guided by their contents in all that concerns our merchants. He has been able to see by the example of one of his neighbours, the Sultan of Kouldja, to what obstinacy and bad faith towards us lead. On the other hand, the case of his other neighbour, the Khan of Khokhand, has given him an evident proof, as he himself says in his letter to the Governor-General, 'that he who has concluded peace with Russia, and has obtained her friendship, has not had to suffer any prejudice or oppression; but, on the contrary, all the small States enjoy security, owing to the powerful Muscovite Empire.'"

All exceedingly satisfactory, no doubt; but we know that Poland was partitioned from the very best motives, and with as free a declaration of them; yet Europe in general looks on it as an atrocious outrage, which is yet to be atoned for.

After all it seems that Khiva is to be "brought to reason," not swallowed up just yet; and as a proof that all is to be fair and above-board, your Ambassador's military *attaché* is invited to accompany the expedition. This surely ought to disarm all suspicion, and if the treaty, or understanding, or whatever else it may be with Persia, can be as cleverly explained away, the armed truce which of

late has gone by the name of peace may endure a little longer. But that all the thunder-clouds should eventually disperse without mischief, requires more faith in the good intentions of Emperors and Czars, than I can claim to possess.

It is a noticeable fact, as showing how much the rise of the new military monarchy affects its neighbours, that the small and poor Northern kingdoms are drawing closely together, for mutual protection. Sweden, Norway and Denmark, have sunk their old jealousies, and come to an agreement on the subject of their coinage, which was a frequent subject of ill-will in former days, there being no great real difference, but just enough to quarrel about; and quarrel they accordingly did. Denmark, as knowing by sad experience what she has to fear from "peace-loving Germany," is digesting a system for so fortifying Copenhagen as at least to secure it from an "Anconade;" and her fleet is being strengthened, to the best of her ability. But she has no millions in her War chest, and she painfully feels that whilst the present state of affairs continues, she only exists on sufferance. A war between Germany and Russia would be a god-send to her, and to Sweden also; and Austria and Turkey would be far from unconcerned spectators.

The new year found the Pope a "prisoner in the Vatican," but of quite consequence enough to warn the German Liberals as to the possible effect of having a few hundreds, or thousands, of priests on their hands, who *will not* break their allegiance to him. If their intended legislation against him is so outrageous that it can never work, certainly his language to them is equally unsparing, and it seems to have created a kind of fear in Germany, however disguised under bold words; for the police have orders to seize all the papers in which his latest Allocation appears in the German language, "to prevent," as the *Provincial Correspondenz* says, "the scandalous invectives of this fallen Sovereign reaching the lower orders;" a great piece of folly in these days. The "invectives" have been published in Latin, Italian, French, and English, at least, and it would be rather strange if no Catholic priest could be found with ability enough to embody them in a sermon in German or Polish. To be sure he would be liable to the penalties of the act against bringing politics (except of the Liberal sort) into the pulpit; but, somehow, penalties, either large or small, seem to have very little effect on the priest. You may, to be sure, hang him; but as two or three others always appear to take his place, the plan can hardly be said to be a success.

We keep, as you are aware, two representatives in Rome; one to the Pope, and another to Victor Emmanuel. New Year's day is the customary time for waiting in a complimentary way on both Sovereigns, and this year it has given rise to a "complication." The officers and crew of the French man-of-war intended to wait on the Pope, and M. Bourgoing, the representative at the Vatican, was well pleased thereat, but he would not hear of their waiting on Victor Emmanuel also. Our other representative, M. Fournier,

maintained that they should ; on an appeal to the President, his view was confirmed, and M. Bourgoing resigned. A kind of mystery has been made of the appointment of his successor, M. Corcelles, but he is well known as a friend of the temporal sovereignty, and hence no one supposes that M. Thiers has changed his opinions on the Italian question. "Italian question" it may still be termed, for none of the many Ministers of Victor Emmanuel seem to have the statesmanlike ability that is needed to complete the work of Cavour ; and both the Pope and the exiled Princes have many believers in their eventual recovery of their lost States.

In Spain I see the Ministry, with the touchiness that shews conscious weakness, vehemently declaring that American "pressure" has had nothing to do with their negro emancipation scheme. First, they don't know that President Grant has written to General Sickles at all ; if he has, they don't know what about ; or at any rate, General Sickles has not told them, in plain words, that if they don't set about fulfilling their promise of years ago, he shall have but a poor opinion of them. Their opponents, representing a dozen different shades of opinion on other subjects, are unanimous in this, that such explanations are not satisfactory, and they have formed a League to oppose the abolition, and waited on the King to tell him so. The Ministerial journals find comfort in the fact, that so many Carlists, and Alfonsists, and even Republicans, could be found to own him as their "King ;" but they know very well that not one of them would draw a sword in his defence. As to everything else, the tale is still the same. The "factionous" are always "being pursued," or "going to be pursued," but they nevertheless cut the telegraphs, plunder trains, and carry off wealthy hostages as briskly as ever. Indeed, they seem to be increasing in strength and boldness, for one of the latest pieces of news is the burning of a railway-station with petroleum ; have they any of the Parisian Communists among them ?

EDITOR'S PORTFOLIO;

OR,

NAVAL AND MILITARY REGISTER.

To our disgust, we have to chronicle the refusal of our Liberal Government to fit out the modest North Polar Expedition, asked of them so recently by the highest naval and scientific authorities of the country. The following is the text of the official communication to the President of the Royal Geographical Society:—

“ 11, Downing Street.

“ Dear Sir Henry Rawlinson,—Mr. Goschen and I have carefully considered the documents which you have laid before us with regard to the proposed Arctic Expedition.

“ We do not find in them anything which shows there is any pressing reason why the expedition should be sent this year.

“ We give no opinion as to the expediency of such an expedition at a future time, but we are clearly of opinion that it would not be right to send out a second scientific expedition precisely at the moment when the public revenue has to bear the main burden of the expenses of the operations entrusted to the ‘Challenger.’

“ I believe it has been erroneously stated that the ‘Challenger’ Expedition involves very little expense. That is not so. The cost has already been considerable, and nothing has been spared to insure success; there will further be an additional annual outlay for three years.

“ Under these circumstances, we regret that we cannot recommend the sending an exploration party to the Arctic Ocean as a Government enterprise this year.

“ Believe me, yours very truly,

(Signed)

“ ROBERT LOWE.

“ Sir Henry C. Rawlinson, K.C.B.”

At the meeting at which this gracious missive was read, the President had the courtesy to represent it as only deferring the expedition till the country could really bear the cost. When is that likely to be, we should be glad to know? We used to consider ourselves moderately wealthy, when our beloved “exports and imports” did not reach a quarter of their present magnitude;

and countries that certainly are not better off than we then were, can yet spare a trifle for the object that is too costly for us. Austria, Italy, Sweden, have all fitted out North Polar Expeditions of late years, and even private individuals in America and among ourselves have done the same. We even hear a rumour of such an expedition next spring. Let us hope that it may be true, and that it will solve the problem we have been working at for ages. They, and not the nation as a nation, will reap all the credit, to be sure ; but what is that to Mr. Lowe, so long as he saves the money ?

According to Washington Irving, one of the Dutch Governors of New York "discovered a talisman, and ruined the State thereby." This talisman, we must explain, was "Economy," and the whole story is a lively picture of the mismanagement of the United States, under the rule of President Jefferson. He discovered that it was more "economical" to build gunboats than ships, and gloried exceedingly in the fact. But when his successor, Madison, had to provide for the very probable contingency of a war with Great Britain, another discovery was made, namely, that, instead of the "economical" gunboats protecting the shore, very "uneconomical" forts must be built in all haste to protect the gunboats ; and, even when this was accomplished, ships must be provided, to take care of both. So the "economy" resulted, as it ever does, in a double expenditure.

We commend this little passage of naval history to the attention of the Admiralty. The fashion has set in, and they appear obliged, whether they like it or not, to go on increasing the size of our ironclads, until they become absolutely unmanageable. Taken one with another, they cost something like half a million of money each—a sum that in former days would have supplied a fleet ; and such is their construction, that they appear to be safe only so long as the engines are in motion. This, of course, adds enormously to their expense when in commission ; but there really seems no help for it ; and "economy in coal," however desirable, is, in fact, impracticable. By saving a few tons of coal, we lost the 'Captain' and her hundreds of brave men. We fear the accident to the 'Lord Clyde' may be accounted for in the same way ; and assuredly the 'Northumberland' was put into serious peril through "economical" reasons at Madeira. Had her steam been

up when her cable parted, we may well believe she would not have impaled herself on the spur of the 'Hercules;' but, with her fires banked up, she was absolutely helpless, and it is a great subject of thankfulness that she did not go on shore and become a wreck. Men's lives, we are quite aware, have no money value; but ships have, and when the little bill comes in for the patching up at Gibraltar, and the tinkering at Malta, crowned by the too probable half-rebuilding at home, we may very probably find that it would have been far better to have burnt an extra peck or two of coals at Funchal last Christmas morning.

The declaration of Russia, in November, 1870, that she would no longer be bound by the stipulations of the Treaty of 1856, created some little disturbance at the time; but was soon followed, as was, of course, expected, by the new Treaty of March 13, 1871, which allowed her to have her own way. She did not ask for very much, in the estimation of some people, who thought the Crimean War altogether a mistake, and so the peace-at-any-price policy had a triumph. It seems now to be put to a more severe test, and one would almost think that another policy must take its place. At least, if we had statesmen of the older school—Palmerston, for instance—such would be the result of a discovery that has recently been made, and which is of vital interest to the tranquillity, if not the very existence, of our Indian Empire.

It is hard to write on this subject without what must seem wearisome repetition, so well are the facts known of the steady advance of Russia upon India; but at last a new feature presents itself. State after State has been, and still may be, absorbed in Tartary, without giving the ordinary Englishman serious concern, as the Hindoo Koosh is popularly regarded as an impassable barrier; though after the triumphs of Russian engineering in Kashgar, which have converted mountain passes more formidable than the Alps or the Pyrenees can show, into carriage roads superior to the Simplon, this may be doubted. But the real and present danger is, that, whilst Europe has been amused with the tale of an "avenging expedition" against Khiva, Russian diplomacy has been successfully at work in Persia, and has obtained a cession of country, which in reality renders the Shah a dependant, and gives the legions of the Czar the command of the shortest and best road to India. Fortunately, Parliament will meet in a

few days, and perhaps some honourable Member may be found persevering enough to extract from the Foreign Secretary an account of the real purpose of Count Schouvaloff's recent mission. It is said to have been to give "satisfactory assurances" as to the expedition against Khiva. It may be quite true that Russia may have her griefs against its ruler, as we had against Theodore; and even if she did not follow our example by withdrawing when she had set free her captives, we should have no greater cause of quarrel than when she seized on Bokhara and Samarcand, which we have hitherto borne without official complaint. But the possession of a navigable river flowing far into Khorassan is quite another matter, bringing the possessions of Russia and England far too near to be pleasant; and, unless we mean the Affghan war to go for nothing, like the Crimean one, we must be up and doing, not merely talking. Of course, an official denial of "*aucun traité secret*" has been given by the Persian Ministry, which we subjoin, but knowing how elastic diplomatic language often proves to be, we take it with a grain of salt:—

"AU REDACTEUR DU 'TIMES.'

"Monsieur,—Quelques journaux de Londres ont répandu ces derniers jours et répandent encore le bruit que la Perse a conclu, il y a deux ans, avec la Russie un traité secret par lequel elle lui cède une portion du territoire sur les bords de l'Atrek et même le Khorassan.

"Je suis autorisé à déclarer formellement qu'il n'existe, à ce sujet, aucun traité secret entre la Perse et la Russie.

"Vous m'obligerez, Monsieur le Rédacteur, en voulant bien insérer la présente déclaration dans votre estimable journal.

"Veuillez agréer, Monsieur le Rédacteur, l'assurance de ma considération distinguée.

"Le Ministre de Perse,

"H. CH. MOHSIN KHAN.

"Légation de Sa Majesté Imperiale le Schah de

"Perse à Londres, 22 Janvier.

We are inclined to think that Imperialism has sustained no irrecoverable shock by the death of Napoleon III., but rather that the state of abeyance into which it has at present fallen may do more for the restoration of his dynasty than he himself could ever have accomplished. What we now know of his physical maladies tells us that never again could his warmest partisans have relied on him either for leadership in the field or guidance in the council. Like his uncle, he has died an exile; but the very dif-

ferent status to which he had attained is forcibly shown by the formal mourning with which all the European Courts have honoured his memory. M. Thiers may propose to prohibit the magic appellation "Napoleon IV.," but public opinion will not go with him in any part of the world, and his moral proscription will only damage his Republic, by showing it to be afraid of even the shadow of a mighty name. The proposition, in fact, lands him in a dilemma; he must either re-establish the odious laws of proscription which the Bordeaux Assembly had the good feeling to sweep away, or he must supply their place by some such illegal act as the expulsion of Prince Napoleon.

As to the deceased Emperor, we need say little. We have never been his unscrupulous assailants in life, and therefore we need not follow the example of some such, by becoming his fulsome panegyrists in death. We do not believe that he knowingly preferred the interests of England to those of his own country, but we know that he admired many of our institutions, and would willingly have seen them flourish to any extent that was not prejudicial to his own personal rule. But we think he judged unwisely as to how far he could go in this direction, and thus he raised hopes as "to crowning the edifice with Liberty," which being disappointed, resulted in his downfall. His dynasty, no doubt, would have been saved, had he had success in the war against Germany; but that he wantonly provoked that war with such an object is now known to be untrue, and his memory ought to be relieved from such a calumny.

This indeed, has been done, for every one knows that Prussia was the real, though not the nominal aggressor, whilst the extorted milliards show why she was so; and this is a vindication of the late Emperor which will tell most favourably for his son, when the present sham of a "Conservative Republic" shall collapse, as it assuredly will do at no distant period. A strong Government is a necessity for France, as every well-wisher to that noble country will allow, and that Imperialism is more likely to supply it than any other form is the belief of many impartial observers, every way qualified to pronounce an opinion.

According to official announcement, the "Royal Naval College at Greenwich" is to be, in part, opened on the 1st of February. Gunnery lieutenants and sub-lieutenants are at once to commence

their studies, and on the 1st of October they are to be joined by many other classes, from captains to engineers, as well as dock-yard apprentices, private students of naval architecture or marine engineering, and officers of the mercantile marine. Rear-Admiral Astley Cooper Key, C.B., F.R.S., is to be President of the College, and so a fair assurance is given that the course of education will be practical as well as scientific.

The list of subjects in the Admiralty Minute is a tolerably stiff one, but the Director of Studies will, it is to be hoped, take his tone from the President, and avoid any prejudice to that "practical training in the active duties of the naval profession," which my Lords justly pronounce "all important." The danger in connection with all professional colleges lies in this direction, that they tend rather to make bookworms than men of action; and though some students have been found to combine all the ready resource and indomitable courage of the rough practical seaman with the highest scientific attainments, it must be allowed that the union is rare. We will hope that the new College may be successful, but we have seen so many Academies and Colleges founded for one or the other branches of the United Services, remodelled half a dozen times over, and still considered not yet to be quite perfection, that we do not deem it prudent to speculate as to the result of this latest experiment. As we have said, the name of the President creates a favourable impression, and we trust that all under him, whether teachers or pupils, will set to work with a will, so as to establish the Institution on a firm basis. We may shock some highly scientific officers by the avowal that we have never yet seen the necessity for the attempt to push naval education to the proposed pitch; but as it has been determined on, by all means let the scheme have a full and fair trial, and we will cheerfully abide by the result.

CRITICAL NOTICES.

A SCAMPER TO SEBASTOPOL AND JERUSALEM. By James Creagh. (R. Bentley and Son).

In these days of travelling round the world, under the guidance of Cook or Gaze, a traveller who has simply contented himself by visiting the Crimea and the Holy Land, cannot expect to be looked upon with the veneration that he would have inspired a century since. But while thousands may, and do visit famous places yearly, it is a very small portion of them that attempt to give their less fortunate fellow-creatures an account of what they themselves have seen and suffered in their travels; and of this number, those who produce a book that in writing, photograph all their experiences and the scenery passed through to the life, there is still a greater lack. Of the latter class, however, we at once hail the author of this extremely cleverly written and thoroughly amusing book, as a member, and we have no hesitation in predicting that whoever takes it once in their hands to read, will not miss a word Mr. Creagh has to tell until the end has been reached. Evidently an old soldier, he regards all that is military from a practical and comprehensive point of view; so whether he is watching the Prussian soldiers drilling at Berlin or Potsdam; the doings of the Cossacks at Warsaw or Odessa; or when he is describing in vivid, picturesque language the alterations that time has traced at Balaklava and around Sebastopol, his ideas are always clothed in language as simple as it is cultivated and well chosen. He takes us to the room where Lord Raglan died, on past where Mrs. Seacole's hut stood, and among the graves of our soldiers, particularly noting that of "Hedley Vicars," a cemetery which, he tells us, "is in good repair, protected by a substantial wall and an iron gate." "Kadokai has disappeared," he continues; "the railway has been removed, and the valley which was trampled by the footsteps of thousands, is again covered by vineyards, which reach to the bottom of the harbour of Balaklava." But the entrenchments remain, while the encamping grounds of the various divisions were yet distinctly visible, "by the round holes where tents had been dug out." We have come across no better description of the battle-field than that which Mr. Creagh has so graphically given to us; the whole place stands before us in its desolation, while at the same time it is crowded with the phantom armies which peopled it eighteen years ago. Although called "A Scamper," that is a title which must not be looked upon as at all an ephemeral one, for a more carefully written, or evidently a more truthful as well as a more instructive volume of travels has never, we believe, been penned. We read it with unmixed pleasure, and all who seek similar enjoyment will do well to get a copy of the book, which they will assuredly lay down with regret.

ARMY RESERVES AND MILITIA REFORM. By Lieut.-Col. the Hon. A. Anson, V.C., M.P. (Henry S. King and Co.)

This is a telling pamphlet, the key-note of which is struck in the very awkward question in p. 7, "Does any one know anything which ought to be known in case of war?" We fear the knowledge is very defective, but our author, at least, thinks that he knows what ought to be known in preparing for war, and his proposals have clearly the merit of being "thorough." Make a bonfire, he says, of all existing orders and regulations as to recruiting, and place the whole business in the hands of an officer independent alike of the Commander-in-Chief and of the Secre-

tary of State. Divide the country into forty militia districts, in each of which a committee shall be bound to provide annually a certain number of men, the Government stepping in with the ballot if they fail in their duty. Train these militiamen for a whole year, and hold them liable to be called out for four years more in case of war. Have them trained by officers, non-commissioned officers and men of a regular regiment attached to their district, and draft them into that regiment only. Reduce the regular regiments to forty, but let each consist of four battalions (one always, in turn, remaining at home), and treat the militia as its fifth battalion. Our readers well know Colonel Anson's views as to the Army in general, the proposed short service, and the suicidal policy of of having a civilian at the head of the War Department. We can only quote the following few lines, but they go to the root of the matter: "The fact is, that the legislation of the last few years has driven us to a worse class of men, while we no longer use the same stringent measures for reforming them. Now there is no difficulty in fixing the responsibility: we all know that it rests upon the War Minister; but we cannot touch him. Our Army may go to pieces (as it has done), may be rotten at the core (as it is), but we cannot touch the War Minister, because it would involve a vote of want of confidence in the Ministry. Directly there is a question raised which may be turned into a vote of want of confidence, the vote is taken—not on the question at issue, *in spite* of it—on the general question whether a certain set of men are but to hold office or not. This principle is applied even to comparatively small questions." Our author writes thus with particular reference to a question of his in reference to the late Autumn Manœuvres, which will be fresh in the recollection of our readers; but all must allow that it is a truth of wide application, and a just picture of the way in which the very existence of the United Services is recklessly hazarded, and the exigencies of a party preferred to the true interests of the country. There is much more in the pamphlet deserving serious attention, and we have pleasure in commending it to the favourable consideration of our readers.

BOOK OF ARITHMETIC FOR THE ARMY. By Thomas Anderson, Army Schoolmaster, 93rd (Sutherland) Highlanders. New Edition. (Longmans).

This is one of the very useful School Series, edited by the Chaplain-General. We noticed it on its first appearance, now some time since, and we are glad to see that it has been well received by the class for whom it is principally, though not exclusively adapted. We notice every here and there some improvement, and especial care has evidently been taken with those parts that will be most required by the private or non-commissioned officer who aspires to a high-class certificate from the Military Educational Department. For instance, "rules are given and examples worked out for calculating averages and per centages, as well as for finding 'Figures of Merit' of a company or battalion in preparing musketry returns." We have looked at the rules and examples (pp. 160-164), as well as at the sections on vulgar and decimal fractions, and we feel bound to say that all is made as simple and easy as the nature of things will allow. Whether our Army would be more effective if every private could square the circle, or carry out a calculation to fifty places of decimals, is, at least, an open question; but every soldier, by the help of this handy little shilling book, may acquire a great deal of knowledge that may be practically useful to him, in the matters of account that are perpetually arising between him and his superiors. That such knowledge should be generally diffused in the ranks is very desirable, as the best means of avoiding the misunderstandings that

now so often occur; and we know no book so well fitted to give it as this of Mr. Anderson. If it is not supplied by authority to every regiment and garrison in liberal numbers, it certainly ought to be, and that speedily.

NAVAL AND MILITARY INTELLIGENCE.

NEW SHIPS OF WAR.—Six vessels for the Royal Navy have been completed during the past quarter, and there are twenty others in course of construction at the various Government dockyards and private firms. The vessels completed are the 'Ready' and 'Rifleman,' 4 double-screw composite gun-vessels, 592 (462) tons 600 (100) horse-power engines, which have been built at Chatham; the 'Bulldog,' 'Pickle,' 'Pike,' and 'Suap,' 1 double-screw iron gunboats, 254 (245) tons, 158 (28) horse-power engines, built at Messrs. Campbell, Johnstone, and Co's, North Woolwich. The new vessels ordered or under construction comprise four composite screw sloops of four guns, 894 (727) tons and 720 (120) horse-power engines—viz., the 'Albatross,' building at Chatham; the 'Egeria' and 'Pantome' building at Pembroke; and the 'Daring,' which was originally intended to be constructed at Chatham, but has since been ordered of Messrs. Money Wigram and Co., of Blackwall; two iron screw-corvettes of 14 guns each, cased with wood, 3912 (2679) tons 5250 (700) horse-power, both ordered to be built at Portsmouth, and to be named the 'Bacchante' and 'Boadicea'; three 14 gun screw-corvettes the 'Amethyst,' 'Modeste,' and 'Encounter,' 1890 (1405) tons, 2149 (350) horse-power—the two first-named are building at Devonport and the other at Sheerness; three double-screw iron gun-boats, carry one gun, of 251 (245) tons, 168 (28) horse-power, named the 'Cuckoo' 'Hyæna,' and 'Weasel,' all being built by Messrs. Laird, of Birkenhead. A new iron steam troopship of 2038 tons, and 1500, to be named the 'Assistance,' is ordered to be constructed by Messrs. Green, of Blackwall; a composite steam-sloop, of four guns, 894 (727) tons, 720 (120) horse-power, has been contracted for by Messrs. Money Wigram and Co., of Blackwall, to be named the 'Sappho.' The other vessels under construction are the 'Blonde' 26, iron screw-frigate cased with wood, 5696 (4939) tons, 1000 horse-power, at Portsmouth; 'Fury,' 4, armour-plated turret-ship, 10,464 (5030) tons 7000 (1000) horse-power, at Pembroke; 'Raleigh' 22, iron screw-frigate, sheathed with wood, 4955 (3210), 6000 (870) horse-power, ordered to be launched at Chatham on 1st of March; the 'Seadflower,' a brig for two guns, of 454 (425) tons, building at Pembroke, and two four-gun composite gun-boats, the 'Ariel' and 'Zephyr,' of 408 (308) tons, 360 (60) horse-power, at Chatham. In consequence of the Lords of the Admiralty having issued orders that the 'Ariel' and 'Zephyr,' composite gun-vessels, now building in Chatham Dockyard, shall be launched on the 11th of February, the work is being actively proceeded with.

BOYS IN THE NAVY.—The Lords of the Admiralty have issued an order directing that all boys who have been brought up in the training-ships belonging to Her Majesty are to be rated ordinary seamen at the age of eighteen, unless they should be found on examination, unfit, either from ignorance or incapacity. If a boy be found unfit, he is to be continued in the rating of first-class boy for a further period of six months, or to be rated second-class ordinary, as the examining officer may recommend. All such cases are to be reported to a commander-in-chief. Boys who may be entered

from the shore as first class boys, and who have not passed through the training ships of the Royal Navy, are to be rated ordinary seamen, or second class ordinary seamen, at the age of eighteen or not later than eighteen and a half years, according to their proficiency.

HEART DISEASE AMONG SEAMEN.—Mr. Nathan, assistant surgeon of the Royal Naval Hospital at Haslar, reports 1,572 cases of disease of the heart admitted into that hospital in the year 1871, and states that from the yearly entries for the last ten years heart disease appears to be on the increase in the Royal Naval service. Among the probable reasons for this increase he mentions the augmentation of the number of drills, such as the institution of the running drill; the system of weekly payments in the Marine divisions, giving the men more opportunity for a complete debauch; the increased size of naval ordnance, the greater distance aloft in some of the ironclads, the call of the boatswain's pipe entailing a much more lengthened journey than formerly from the lower deck or cross trees; and while there has been an increment in the size of the ships, a diminution of their crews has occurred, and therefore a greater amount of work falls to the lot of each person. The men most frequently mention heavy gun drill as productive of this disease; but there may be more than one case in operation. Tobacco, alcohol, and dissipation may be the combined agents in one case; cachexia the predisposing, and heavy drills the exciting cause in another; dyspepsia and debility in a third. It appears to be a general idea that a potent cause of heart disease among soldiers is to be found in the interference with the circulation occasioned by the tightness of the tunics and the pressure of belts and straps. Mr. Nathan states that his experience leads him to believe that with the Marines, more prolific causes of the disease must be in operation. The men themselves generally agree as to their tunics or belts not causing an uncomfortable amount of compression; at heavy gun drill neither belts nor knapsacks are worn, and at running drill only occasionally, neither can the present stock be accused of embarrassing the cervical vessels. He observes that an instance where the dress does visibly impede the circulation is seen in sailors; their trowsees are supported entirely by the tightness with which in the upper part they encircle the body, and this is materially increased by the closeness with which their flannel shirts, serges, &c., are stuffed into them. Hence varix of the lower extremities and of the spermatic veins is a common disease among sailors; but it does not appear that even with this degree of tension the arterial circulation is interfered with. If compression of the chest is so fruitful a source of cardiac disease it is suprising that it does not predominate among women instead of being nearly thrice as common among males. Mr. Nathan is of opinion that it is not among ladies of fashion that tight lacing exists so much, perhaps, as among the labouring female population, and, moreover, their stays are furnished in front with long unyielding wooden or steel laths; the amount of compression is much greater than that exerted by any belts worn by a Marine, and the women perform their work enveloped in this cuirass, though certainly their toil is in general more equally distributed throughout the day, and is not of the short, violent, periodic description to which our sailors and Marines are exposed. On the whole, Mr. Nathan comes to the conclusion that one of the greatest steps towards the diminishing of heart disease in the naval service would be an earnest endeavour to improve the morals of the men, and save them from the excess in spirituous liquors, tobacco, and dissipation, in which they are apt to indulge. He remarks that stokers appear to be more exempt from disease of the heart than any other class serving in the Navy, and he attributes this immunity to the high temperature in which they work, causing a great increase in the cutaneous excretions and exhalations and in the respiratory process, and relieving the circulatory degree. Heart disease, so far as it prevails among them, seems chiefly to take its rise from rheumatism, a disease to which they are eminently subject.

UNITED STATES ARMY AND NAVY.—The New York Times gives the following details, as shown in Congress papers. The strength of the Army is stated at 31,332—viz., 2406 commissioned officers and 28,926 men; of the Navy, 179 vessels of 233,480 tons, 1,399 guns, and with 8,500 men. In 1860 the Army consisted of rather more than 16,000 officers and men; in 1865 the number exceeded a million. The total number of United States soldiers serving in the war of the Revolution, 1775, to 1783, was but 278,021; in the war with the United Kingdom, 1812 to 1815, 527,654, including about 270,000 militia serving less than three months; in the Mexican war, 1846-47 73,260; in the recent rebellion, 2,688,523. The Navy in 1860 numbered only 76 vessels and 7,600 men. At the close of the war it was augmented to 671 vessels with 51,500 men. It is now reduced to 179 vessels, only 41 of which are in commission for sea service, and 8,500 men, being but 900 more than were in the service in 1860. There are in special service seven vessels mounting 50 guns. The others now in commission for sea service compose the fleets representing and protecting American interests abroad. They are stationed as follows:—North Atlantic station, 6 vessels, 41 guns; South Atlantic (Brazil), 3 vessels, 34 guns; European, 6 vessels, 110 guns; Asiatic, 9 vessels, 114 guns; Pacific, 10 vessels, 111 guns; making 34 vessels of 410 guns, or adding those on special service, 41 vessels of 460 guns, the total in commission for sea service. The standing Army is retained mainly to do police duty on the frontier. It is assumed that both Army and Navy can be raised to the required extent in time of need.

THE LOOSHAI EXPEDITION MEDAL.—His Excellency the Governor-General in Council has much satisfaction in publishing for general information, the following letter from the Honourable the Secretary of State for India:—“India Office, London, December 30. To His Excellency the Right Honourable Governor-General of India in Council. My Lord,—I have had under my consideration in council your lordship’s letter dated 17th June last, No. 104, recommending that the Indian medal may be granted to the officers and men who served with the Looshai Expeditionary Force, and I have now much pleasure in conveying to your lordship the information that Her Majesty has been graciously pleased to sanction the proposal, and to command that it be carried into effect. The Indian Medal of 1854, with a clasp for ‘Looshai,’ will be conferred upon all officers, non-commissioned officers and men who composed the Lushai Expeditionary Force; those who have already been granted the medal receiving the clasp only on this occasion. Copy of the correspondence which has taken place with the Horse Guards is transmitted for your lordship’s information, and I request that you will give the necessary instructions for the announcement of Her Majesty’s commands in general orders, and the preparation of returns in the usual prescribed manner.—I have, &c., ARGYLL.”

THE RUSSIAN NAVY.—The “Cronstadt Messenger” says that in 1872, as in preceding years, the great squadron of evolution has navigated under the flag of the first general officer of marine, the general aide-de-camp Boutakof, and was divided into two divisions, one commanded by Counter-Admiral Stepanof, and the other by Counter-Admiral Brummer. The ordinary exercises excepted, the principal purposes of the navigation was the trial of five new ironclad frigates—the casemated frigate Prince Pogarsky, and the turret-frigates Admiral Lazarof, Admiral Greig, Admiral Tehitchakof, and Admiral Speridowof. All these frigates have come out well of the trial, and the frigate Prince Pogarsky has even surpassed all expectations. She is an excellent sea-going vessel, both as a steaming and a sailing vessel. In the course of the year there took part in the navigation of the Baltic Sea 5 admirals, 772 officers, 50 naval guards and cadets, 334 pupils of the naval schools, and 10,150 sailors. In the Black Sea there were 18 ships and 3 floating

lighthouses, and in the Caspian Sea 24 vessels, with 85 superior officers and 1,036 sailors. In the flotilla of Siberia there were employed 29 vessels, 131 superior officers, and 1,360 sailors.

THE THREE BATTLES.—Gravelotte was purely an infantry and artillery fight. At Koniggratz, on the contrary, the cavalry of both armies engaged in frequent smaller or larger conflicts, especially towards the end of the battle. At Sedan, again, the French cavalry only attacked *en masse*, and were invariably driven back by the German infantry. The handling of the artillery showed a great advance at Gravelotte and Sedan compared with Koniggratz. While in the artillery combats of the centre on the 3rd of July, 1866, there is no trace of any uniform plan on the part of the general in command, at Gravelotte and Sedan the artillery was splendidly handled. After none of the three battles was there any protracted pursuit. The numbers engaged at Koniggratz were much larger than at either of the other two battles. The Prussians mustered 215,000 men, as against 220,000 Austrians and Saxons, whereas at Gravelotte there were only 120,000 French against 200,000 Germans, and at Sedan, 130,000 French against 200,000 Germans also. Koniggratz was in point of numbers the greatest battle of the century, as there were 30,000 more men present than at Leipzig. The losses in killed and wounded at Koniggratz were 30,000 Austrians and Saxons, as compared with 10,000 Prussians, or a total of 40,000 men. At Gravelotte there were 14,000 French and 20,000 Germans killed and wounded, or 34,000 men in all; while at Sedan the total loss was 24,000—namely, 14,000 French and 10,000 Germans. Thus Koniggratz also shows the largest number of killed and wounded—much larger than we find in the greatest engagements of the war of 1870-71.

GERMAN REWARDS.—A royal decree recently signed at Berlin authorises the complete distribution of the various sums lodged with the Government during the war, for the reward of special acts of gallantry in the capture of trophies from the enemy. The prizes received appear to amount to rather over £12,000, and claims were sent in by all the sixteen corps of the North German Army, with the exception of the 7th. The South German soldiers are not anywhere referred to, having separate reward funds to look to. According to the terms of the decree the rewards are given in all cases to regiments, not to individual persons, and are payable altogether for the capture of one eagle, 11 colours, and 161 guns, all actually taken in action. The 77th Regiment of the (Hanoverian Fusiliers) receives the highest dividend, having taken on various occasions no fewer than nineteen guns and a colour. Then follow the Guard Fusiliers, who captured eighteen guns during the advance on the day of Sedan.

The third on the list, the 93rd of the Line, or Anhalt-Dessau Regiment, plainly owes its high position to having been prominently employed at the fatal surprise of De Failly, at Beaumont, where ten of the guns of his corps fell to its share. This regiment, by the way, had at the time been already distinguished in another less pleasant but hardly less honourable manner, having been sent on a fortnight before from the advanced guard of the 4th Corps, just at the time of the battle of Mars-la-Tour, to make an attempt on Toul, where its efforts at open escalade in broad daylight met with a very bloody and decided repulse from the National Guards collected behind the works of the city.

OBITUARY.

Retired Admiral Sir Frederic Thomas Michell, K.C.B., died on the 14th Jan., at North Gate, Totnes, Devon, in his 85th year. This officer entered the Royal Naval Academy April 27, 1800, and embarked Sept. 17, 1803, as Midshipman, on board the *Eurydice*. In the course of 1806 he became in succession attached to the *Ocean*, flagship of Lord Collingwood, in the Mediterranean, on which station he continued until promoted to the rank of Lieut., May 29, 1807. Obtaining an appointment, in the following Oct., to the *Active*, he aided in that ship at the capture, March 26, 1808, of the *Friedland* brig of war, having on board the Commander in Chief of the Italian Marine; and was wounded in two successful boat expeditions on the coast of Albania. Some time after he joined, first the *Boyne* and then the *Queen Charlotte*, bearing each the flag of Lord Exmouth, who, on the day preceding the battle of Algiers, placed him in charge, with the rank of Com., of the whole of the battering flotilla attached to his squadron. During the ever memorable bombardment, when, as it was supposed, the Capt. of the *Queen Charlotte* had been mortally wounded, he was sent for by the Commander in Chief, and directed to act in his stead. He was removed from the command of the flotilla to that of the *Beelzebub* bomb, Sept. 1 1816; and on 16th of the same month he was officially promoted. Quitting the *Beelzebub* on the 21st of the ensuing Oct., Capt. Michell did not again go afloat until Dec., 1826. On the 27th Dec. he was recommended to the consideration of the Admiralty by Sir E. Codrington and Sir P. Malcolm, the successive Commanders in Chief, and by H. M.'s Ambassador at the Porte, in a manner that procured him a Post commission, dated Feb. 22, 1830. His last appointments were, April 23, 1840, and Aug. 4, 1841. He was promoted to the rank of Rear Admiral in July, 1855; Vice Admiral in June, 1862; and Admiral in April, 1866; and was nominated a K.C.B. in March, 1867. He had been eight times wounded.

Retired Captain Josiah Thompson, died on the 15th Jan., at Penrith, in his 89th year. He entered the Navy July 2, 1798, on board the *Tigre*. In that ship he co-operated in 1799 in the defence of St. Jean d'Acre, and took part in 1801 in the operations connected with the expedition to Egypt. On the night of June 5, 1812, Mr. Thompson, who was then Senior of the *Medusa*, and had volunteered his services, ascended, with four boats under his orders, the harbour of Arcasson, the entrance of which was protected by a 4-gun battery on each side, and dashing alongside under a heavy fire of great guns and musketry, boarded, and after a desperate struggle, carried *La Dorade*, 63 of whose crew were either killed or compelled to jump overboard. At daylight the prize was got under weigh, but after proceeding about a league down the harbour she grounded, as had been anticipated, near the two batteries, and it being found impossible to get her off, she was set on fire and blown up. For the manner in which he conducted this very brilliant enterprise Mr. Thompson was strongly recommended to the notice of the Commander in Chief, Lord Keith, as "most active, zealous, brave and good officer;" and his lordship in return expressed his high approval of the "gallantry, zeal, and judgment" he had evinced. This, however, was all he got, the rank of Commander, which his valour so richly deserved, being de-

ferred, incredible as it may seem for 26 years. He was advanced to the rank of Commander, June 28, 1838 and to his late rank March 17, 1856.

Commander John Collier Tucker, late in command of H.M.S. *Columbine*, was drowned on the 3rd Jan., at sea, on his passage from India,

Captain Sir William Verner, Bart., late of the Coldstream Guards, M.P. for County Armagh, J.P. and D.L. for Tyrone, J.P. for Armagh, and formerly High Sheriff of these counties, died on Jan. 10, at 86 Eaton Sq., aged 51.

Retired Captain James Stirling died on the 23rd Jan. at Glentyan, Renfrewshire, aged 84. He entered the Navy, Sept. 24, 1804, as a volunteer. On his return from a voyage to Quebec he was received in Oct., 1807, on board the *Leonidas*, attached to the fleet in the Mediterranean, on which station, after assisting at the capture of the Ionian Islands and the destruction of two martello towers near Cape Otranto, he went back, in Sept., 1810, at the invitation of Sir C. Cotton, to the *San Josef*, and was by him nominated, March 21, 1811, Acting Lieut. of the *Leviathan*. Exchanging, Jan. 31, 1812, into the *Blossom* sloop, he served in the boats of that vessel, April 29 following, and assisted, in company with those of the *Undaunted* and *Voluntaire* frigates, in an attack upon a French convoy near the mouth of the Rhone, on which occasion 7 vessels were brought out, 12 including a national schooner of 4 guns and 74 men, burnt, and 2 left stranded on the beach. In personal command of the boats of the *Blossom* alone Mr. Stirling blew up two martello towers in the Bay of St. Mary. From Aug. 1813, until advanced to his Commander's rank, June 15, 1814, he served still in the Mediterranean. While in the *Ferret*, he was engaged in an attack made by the boats of the *Rhin*, *Menelaus*, and *Havannah* frigates. On a convoy lying under the protection of a fort and of an armed cutter, a praam brig, and a gun-vessei, in the harbour of Corrijou, near Abervrach, on the coast of Bretagne. The *Ferret* afterwards formed part of the squadron under Sir G. Cockburn which escorted Napoleon Buonaparte to St. Helena, where she remained until ordered home with despatches, March 27, 1816. On April 4, when near the Equator, she encountered, and, although with only 8 12-pounder carronades mounted, succeeded, after a running fight of nearly two hours, in capturing, the *Dolores* brigantine (formerly an American privateer), armed with one long 32-pounder on a pivot, 4 long 9-pounders, and 2 long 12-pounder carronades, and laden with a cargo of 275 slaves. The prize was taken to Sierra Leone and condemned; and on June 28, having arrived at Plymouth, the *Ferret* was paid off. Capt. Stirling had not been since afloat. He attained his late rank July 1, 1851.

Lieut. Gen. William How Hennis, on retired full pay, Royal Artillery, died on Dec. 14, at Boulogne-sur-Mer, aged 75. He entered the service Dec., 1813; became Lieut., Aug., 1816; Capt., June, 1835; Major, Oct., 1846; Lieut. Col., May, 1860; Col., Nov., 1854; Major General, July, 1864; and Lieut. Gen., Nov., 1868. He served the campaign of 1815, and was present at the battle of Waterloo (medal).

Lieut. Col. Edward Thomas Tierney, late of the 28th B.N.I., died on Dec. 24, at Chestnut Cottage, South Norwood, aged 63.

Lieut. Henry Gorge Hilliard Stokes, late of the 38th Foot, died on

Dec. 22, at Hillesdon, Torquay, aged 22. He entered the service, Feb., 1870: and became Lieut., Sept., 1871.

Deputy Commissary General Ferguson Thomas Coxworthy, on half-pay, died on Jan. 1, 1873, at 3 Seaton Terrace, Mutley, Plymouth, aged 72. He attained his rank, Jan., 1855.

Assistant-Surgeon Alexander Hamilton Miller, of the Bombay Army, Residency Surgeon at Baroda, died on Nov. 29, at Baroda, aged 30. He entered the service, March, 1866.

Sir George Musgrave, Bart., formerly of the 5th Hussars, Deputy Lieutenant for Cumberland and Westmoreland, died on Dec. 29, in Albemarle Street, aged 73.

Lieutenant General Henry Hancock, of the Bombay Infantry, died on Dec. 30, at St. Leonard's-on-Sea, aged 70.

Colonel Sydney Augustus Capel, on retired full pay, Staff Officer of Pensioners, and formerly of the 12th Lancers, died on Dec., 28, at Boss Hall, Sproughton, aged 75. He became Quartermaster, Oct., 1833; Ensign, July, 1837; Lieut., May, 1839; Capt., July, 1844; Major, Aug., 1856; Lieut. Col., Feb., 1868; and Col., Oct., 1868.

Colonel Walter Cranford Kennedy, on retired full pay, 5th Foot, died on Dec. 28, at Bella Rocca, St. Helier's, Jersey, aged 61. He entered the service, Oct., 1831; became Lieut., Nov., 1834; Capt., Feb., 1840; Major, May, 1850; Lieut. Col., Aug., 1857; and Col., Oct., 1868.

Major G. Elliott, formerly of the 52nd Foot, and late Adjutant, 2nd Derby Militia (Chatsworth Rifles), died Dec. 22, 1872, at Chesterfield, aged 59.

Captain Charles Edward Pritchard, of the Royal Artillery, Brigade Major of the Nagpore Force, died on Nov. 30, on his passage home, aged 33. He entered the service, Dec., 1857; became Lieut., Aug., 1858; and Capt., Aug., 1866.

Captain George Crawford Ricketts, late of the Grenadier Guards, died on Dec. 27.

Captain Alfred Kirke Ffrench, V.C., of the 53rd Foot, died on Dec. 29, at Chiswick, aged 37.

Lieutenant Gervase Barker Power, of the Royal Artillery, died on Nov. 25, at Mhow. He entered the service, Jan., 1867.

Lieutenant Martin Nepean Gubbins, of the Bengal Staff Corps, died on Dec. 1, at Lucknow, aged 27. He entered the service, June, 1865; and became Lieut., Aug., 1868.

Lieutenant Frederick Beresford Lawes, of the 108th Foot, died on Dec. 25, at Weston-super-Mare, aged 20. He became Sub Lieut., Nov., 1871.

Quartermaster Henry Penson, on half pay, Royal Artillery, died on Dec. 24, at Canterbury, aged 53. He became Quartermaster, Oct.,

1856; and retired on half pay with the honorary rank of Captain, Feb. 1868.

Paymaster Charles John Furlong, late of the 2nd Dragoon Guards, and on half pay of the Bristol Recruiting District, died on Dec. 27, 1872, at Greenfield Hall, Holywell, Flintshire, aged 79.

Major General George Wynell Mayow, C.B., late Deputy Quartermaster General in Ireland, died on Jan. 1, near Misterton, aged 64. He entered the service, June, 1825; became Lieut., Feb., 1830; Capt., March, 1835; Major, Nov., 1846; Lieut. Col., June, 1854; Col., April, 1859; and Major Gen. He served throughout the Eastern campaign of 1854-55, first as a Brigade Major of the Light Cavalry Brigade, to Dec. 19, 1854, including the affairs of Bulganac and McKenzie's Farm, and battles of Alma, Balaklava, and Inkermann, and afterwards from Dec. 20 to the end of the war as Assist. Quartermaster Gen., of the Cavalry Division, including the night attack on the Russian outposts on Feb. 19, 1855, battle of the Tchernaya, and the siege and fall of Sebastopol (medal with four clasps, Knight of the Legion of Honour, Sardinian and Turkish medals, and 4th class of the Medjidie).

Major General George Batt Bury, on retired full pay, Royal Marines Light Infantry, and Knight of the Order of San Fernando of Spain, died on Jan. 4, at 25 Athenæum Street, Plymouth, aged 87. He entered the service, Nov., 1804; became Lieut., July, 1808; Capt., June, 1829; Major, Nov., 1840; Lieut. Col., Dec., 1847; Col., Jan., 1852; and Major Gen., June, 1855. He served in the R.M. Battalion on the north coast of Spain in 1836-38, and received the Order of San Fernando, 1st class.

Colonel Charles James Robarts, of the Bengal Staff Corps, and Commandant, 17th Bengal Cavalry, died Jan. 6, at Deyrah, North-West Provinces. He entered the service, June, 1839; became Lieut., Nov., 1842; Capt., June, 1854; Major, March, 1855; Lieut. Col., April, 1862; and Col., 1867. He served the campaign of 1840-42 in Afghanistan (medal); also the Punjaub campaign of 1848-49, including the siege and surrender of Mooltan and battle of Goojerat (medal with two clasps).

Major Robert Hall McCasland, of the 1st Royal Lanark Militia, died on Jan. 4, at Garteraig.

Captain Edward Sivewright, late of the 12th Royal Lancers, died on Jan. 1, 1873, at Erleigh Hill, Rading.

Captain Alexander Macdonell Bonar, of the Royal Artillery, and Adjutant of the 11th Brigade, died on Jan. 2, 1873, at Sheffield, aged 32. He entered the service, April, 1856; became Capt., Dec., 1866; and Adjt., July, 1871.

Lieutenant Robert Gerald Fitzgerald, of the Royal Artillery, died on Nov. 27, at Abbottabad, India. He entered the service, July, 1864.

Lieutenant Charles Bailey, of the 20th Hussars, died on Jan. 5, at Southill, Beds, aged 29. He entered the service, Nov., 1861; and became Lieut., April, 1868.

Lieutenant Edward Christopher Baker, of the 5th Lancers, died on Dec. 4, at Sealkote, Punjaub, North India, aged 25. He entered the service, Feb., 1870, and became Lieut., Nov. 1871.

Lieutenant Charles H. Dougherty, of the 26th Foot, died on Nov. 13, at Fyzabad, Bengal. He entered the service, June, 1859, and became Lieut., Oct., 1862.

Lieutenant Henry Charles Montagu Turnbull, of the 6th Foot, died on his passage from India in the Serapis, near Malta. He entered the service, March, 1865, and became Lieut., June, 1868.

Lieutenant Thomas Crafer, of the Royal Marines Light Infantry, died on Dec. 23, at 16 Clarendon Road, Kensington, aged 28. He entered the service, March, 1863; and became Lieutenant, September, 1866.

STATIONS OF THE ROYAL NAVY IN COMMISSION.

*(Corrected to January 25.)**With the Dates of Commission of the Officers in Command.*

- Aboukir, 24, sc., Comdre. A. de Horsey, 1859, Jamaica
 Achilles, 26, Capt. R. P. Hamilton, 1856, Portland
 Agincourt, 28, Capt. Adeane, Rear-Adm. MacDonald, Channel Squadron.
 Antelope, 2, Lieut.-Com. Charles S. P. Woodruffe, 1860, Constantinople
 Ariadne, 26, Capt. the Hon. H. Carpenter, 1866, special service
 Asia, Capt. the Lord Gilford 1859, Flag of Rear-Adml. Sir L. M'Chintoch, Guard Ship of Reserve, Portsmouth
 Audacious, 14, Capt. C. W. Hope, 1861, River Humber
 Aurora, 28, Capt. S. Douglas, 1865, Detached Squadron
 Avon, 4, Com. ———— China
 Barrosa, 17, Capt. L. J. Moore, 1863, ordered home
 Basilisk, 6, pad, Capt. J. Moresby, 1864, Australia
 Bellerophon, 15, Capt. M'Crea, 1862, Channel Squadron
 Bittern, 3, Com. P. Stevens, W. C. of Africa
 Black Prince, 28, Capt. E. Lacy, 1862, Greenock
 Blanche, 6, sc., Capt. C. H. Simpson, 1866, Australia
 Boscawen, 20, Com M. Hare, 1866, Training Ship, Portsmouth
 Boxer, 4, Lieut.-com. W. Fitzgerald, 1861, Pacific
 Brilliant, 16, Com. W. H. Brent, 1866, Naval Reserve Drill Ship, Dundee.
 Britannia, 8, Cadet Training Ship. Capt. F. A. Foley, 1860, Dartmouth
 Britomart, 2, Lieut.-Com. W. Richards, N. America and West Indies.
 Briton, 10, Capt. Malcolm, 1866 East Indies
 Cadmus, 16, Capt. W. H. Whyte, 1864, China
 Caledonia, 30, Capt. J. Montgomerie 1861, Birkenhead
 Cambridge, 20, gunnery ship, Capt F. A. Herbert, 1864, Devonport
 Cameleon, 7, sc., Com. C. Mainwaring, 1867, Pacific
 Castor, 22, Commander R. B. Nicholletts 1868, Drill Ship, North Shields
 Challenger, 2, Capt. G. Nares, Surveying Service
 Cherub, 2, Lieut.-Com. F. C. Baker, 1861, N. America and W. Indies
 Clio, 18, Commodore. F. H. Stirling, 1869, Australia
 Clyde, 12, Com, R. H. Boyle, Aberdeen
 Cockatrice, 2, sc., Com. G. D. Morant, 1866, Mediterranean
 Coquette, 4, Lieut.-Com E. D. Law, 1861, W. C. of Africa
 Columbine, 3, Com. E. W. Hereford, 1866, East Indies
 Cossack, 16, Capt. R. G. Douglas, 1866, Australia
 Crocodile, 2, Capt. G. H. Parkin, 1866, Indian Troop Service,
 Curlew, 3, Com. D. Boyle, 1865, China
 Dædalus 16 Com. E. T. Parsons, 1866, Naval Reserve Drill ship, Bristol
 Danae, 6, sc., Capt. W. S. Brown, 1866, N. America and W. Indies
 Daphne, 5, Com. R. S. Bateman, 1866, East Indies
 Dart, 5, Com. Denny, 1868, S. E. Coast of America
 Dasher, 2, st. ves., Capt. W. F. Johnson, 1864, Channel Islands
 Decoy, 4, Lieut.-Com. J. Hext, W. C. of Africa
 Dido, 6, Capt. C. Chapman, 1866, Australia
 Doris, 24, Capt W. H. Edye, Detached Squadron
 Dove, 2, Lieut J. G. Jones, 1865, China
 Duke of Wellington, 23, Captain Hon. C. Glyn, 1861, Admiral Sir G. Mundy, Portsmouth
 Durham, 20, Com. W. H. Gould, 1867, Sunderland
 Druid, Capt. H. M. Nelson, 1866, West Coast of Africa
 Dwarf, 4, sc., Commander W. Bax, 1867, China
 Eagle, 16, Com. Guy O. Twiss, 1866 Naval Reserve Drill Ship, Liverpl.
 Egmont, receiving ship, Capt. G. A. C. Brooker, 1862, Rio de Janeiro
 Elk, 4, Com J. Barnett, 1867, China
 Endymion, 22, Capt. E. Madden, 1865, Detached Squadron
 Euphrates, 2, Capt G. C. T. D'A Irvine, 1867, Troop service
 Excellent, gunnery ship. Capt. H. Boys, 1857, Portsmouth

- Favourite, 10, Captain L. Somerset,
Queensferry
 Fawn, 15, Com. H. P. Kuevitt, 1866,
Pacific
 Fiskard, 42, Staff-Com. F. Inglis, 1857,
Greenwich
 Flora, 10, Com. F. Thomson, 1864,
Simon's Bay
 Fly, 4, Com. T. T. Phillips, 1864,
N. America and W. Indies
 Fox, 2, sc. store ship, Staff-commander
S. Braddon, 1866, store service
 Ganges, 20, training ship, Com. A. R.
Tinklar, 1867, Falmouth
 Glasgow, 28, Capt. H. Fairfax, 1866,
Rear-Adm. A. Cumming, E. Indies
 Growler, 4, Com. E. H. Verney, 1866,
Mediterranean
 Hart, 4, Commander P. H. Royse, 1865,
Mediterranean
 Hector, 20, Capt. T. Cochrane, 1857,
Southampton Water
 Helicon, Lieut.-Com. F. Rougemont
1864, special service
 Hercules, 12, Capt. W. Dowell, 1858,
Channel Squadron
 Hibernia, receiving ship, Com. E. D.
P. Downes, 1864, Rear Adm. E.
Inglefield, Malta
 Himalaya, 4, Capt. W. Grant, 1867,
troop service
 Hornet, 4, Com. Noel Osborn, 1866,
China
 Immortalité, 28, Capt. Mc. L. Lyons,
1862, Portsmouth
 Implacable, 24, Com. A. H. Kennedy,
1866, Training Ship, Devonport
 Impregnable, 78, Capt. J. C. Wilson,
1865, Training Ship, Devonport
 Indus, Capt. C. Fellowes, 1858, Rear
Admiral Sir W. Hall, Devonport
 Invincible, 14, Capt., Soady, 1865,
Mediterranean
 Iron Duke, 14, sc., Capt. W. Arthur,
1867, Rear-Adm. Shadwell, China
 Jackal, 2, st. ves., Lieut.-com. H.
P. Clanchy, 1861, Coast of Scotland
 Jumna, 2, Capt. F. W. Richards, 1866,
troop service
 Juno, 6, Capt. J. K. E. Baird, 1864,
ordered home
 Kestrel, 4, Com. W. Boulton, Sheerness
 Leven, 3, Lieut.-com. A. W. Whish,
1864, China
 Lively, 2, Com. E. H. Seymour, Chan-
nel Squadron
 Lord Warden, sc., 18, Capt. T. Brand-
reth, 1863, Vice-Adm. Sir Hastings
R. Yelverton, K.C.B., Mediterranean
 Lynx, 4, Com. J. S. Keats, 1866,
East India station
 Magpie, 3, gunboat, Com. P. Doughty,
1866, East Indies
 Malabar, 3, Captain T. B. Sullivan
India Troop Service
 Martin, 10, Lieut.-Com. C. Gordon,
Portsmouth
 Merlin, 4, Lieut.-Com. E. Day, W. C.
of Africa
 Midge, 4, Com. C. C. Rising, 1865, China
 Minstrel, 2, Lieut.-Com. W. Parsons,
1861, North America and W. Indies
 Minotaur, 34, Capt. R. Fitzroy, 1872,
Rear-adm. G. T. Phipps-Hornby,
Channel Squadron
 Mosquito, 4, Lieut.-Com. W. Bond,
Devonport
 Myrmidon, 4, Com. R. Hare, Devonport
 Nankin, 50, Capt. R. Courtenay, 1859,
Pembroke
 Narcissus, 35, screw, Capt. J. Hopkins,
1867, Rear-adm. F. Campbell, C.B.,
Detached Squadron
 Nassau, 5, Com. W. Chimmo, 1864,
ordered home
 Nereus, 6, store depot, Staff-com.
W. Sharp, 1867, Valparaiso
 Nimble, 5, Com. R. Harrington, East
Indies
 Niobe, 4, Com. Sir L. Lorraine, Bart.,
1867, North America and W. Indies
 Northumberland, 26, sc., Capt. J. H.
Alexander, C.B., 1863, Channel
Squadron
 Opossum, 2, Lieut. H. Fairlie, 1864,
Amoy
 Orontes, 2, Capt. J. L. Perry, 1867,
troop service
 Orwell, 2, Lieut.-Com. F. Dent, 1860,
Queenstown
 Pallas, 8, Capt. C. J. Rowley, 1866, Malta
 Pembroke, 25, sc. Captain G. W. Wat-
son, 1864, Vice-adm. C. G. J. B.
Elliot, C.B., Sheerness
 Penelope, 10, Capt. C. Wake, 1859,
Harwich
 Pert, 4, Com. C. G. Jones, 1865, Brazils
 Peterel, 3, Com. C. G. Stanley, 1867,
Pacific
 Pheasant, 2, Lieut.-Com. H. Crohan,
1862, Gibraltar
 Pigeon, 2, Lieut.-Com. the Hon. F.
Crofton, 1859, Mediterranean
 Pioneer, 2, Lieut.-Com. T. H. Larcon,
1863, W. C. of Africa
 Plover, 3, Com. H. N. Hippisley, 1866,
N. America and West Indies
 President, 16, Com. J. B. Scott, 1861,
Naval Reserve Drill Ship, City
Canal
 Princess Charlotte, 12, Comdre. F. H.
Shortt, 1858, Receiving Ship, Hong
Kong

- Pylades, 17, Capt. A. C. Strode, 1863,
S. E. America
 Racoon, 22, sc., Capt. E. H. Howard,
1864, North America and West
Indies
 Rattlesnake, 17, Com. J. E. Commerell,
C.B., 1859, W. C. of Africa
 Rapid, 3, Com. Hon V. A. Montagu,
1867, Mediterranean
 Reindeer, 7, Captain Kennedy, 1867,
Pacific
 Repulse, 12, Capt. C. T. Curme, Rear-
Admiral C. F. Hillyar, Pacific
 Research, 4, Capt C. Buckle, 1864,
Mediterranean
 Revenge, Capt. B. S. Pickard, 1865,
Rear-adm. Heathcote, Queenstown
 Rinaldo, 7, Com. George Parsons,
1865, China
 Ringdove, 3, Com. T. M. Maquay,
1867, China
 Rocket, 4, Com. A. R. Wright, 1864,
South East America
 Rosario, 3, sc., Com. H. J. Challis,
1865, Australia
 Royal Adelaide, 26, Capt. A. Heneage.
1862, Adml. Sir H. Keppel, K.C.B.,
Devonport
 Royal Alfred, 18, sc., Capt. Henry F.
Nicholson, 1866, Vice-Admiral E.
Fanshawe, K.C.B., North America
and West Indies
 Salamander, 2, Staff-Com. J. Kiddle,
1865, Channel Squadron
 Salamis, 2, st. ves. Lieut.-Com. Little-
ton, 1861, China
 Scout, 21, Capt R. P. Cator, 1866,
Pacific
 Scylla, 16, Capt. C. R. Boxer, 1866,
ordered home
 Seagull, 3, Commander Stubbs, 1865,
West Coast of Africa
 Serapis, 2, Capt. H. D. Grant, 1864,
Indian troop service.
 Sirius, 6, Capt. David Miller, 1863,
North America
 Spartan, 8, Capt. J. S. Hudson, 1866,
N. America and W. Indies
 Sphinx, 6, Capt., H. B. Phillimore,
C.B., 1864, N. America and W.
Indies
 St. Vincent, 26, Training Ship, Com. H
Hand, 1867, Portsmouth
 Sultan, 12, Capt. E. W. Vansittart
C.B., 1856 Channel Squadron
 Supply, 5, Staff com. R. Pearce, 1867,
W. C. of Africa
 Swallow, 3, Com. J. Liddel, 1865,
N. A. and W. Indies
 Swiftsure, 14, Capt. W. Ward, 1864,
Mediterranean
 Sylvia, 5, Com. H. C. St. John, 1866,
Japan
 Tamar, 2, Capt. W. J. Grubbe, 1866,
Troop Service
 Teazer, 4, Com. J. Fitzmaurice, 1866,
China
 Tenedos, 8, Capt, E. H. Ray, Pacific
 Terror, 16, sc. Capt. E. D'O. D'A.
Aplin, 1861, Bermuda
 Thalia, 6, Capt. H. Woolcombe, 1866,
China
 Thistle, 4, Com. H. Leet, 1866, China
 Topaze, 31, Capt. E. Hardinge, 1865,
Detached Squadron
 Torch, 5, sc., Com. H. N. Dyer, 1866,
W. C. of Africa
 Trincomalee, 16, Com. R. Kinahan 1866,
Naval Reserve, West Hartlepool,
 Valiant, 24, Captain N. Bedingfield,
1862, River Shannon.
 Valorous, 12, Captain A. Thrupp,
1865, Portsmouth
 Vanguard, 14, Capt. D. Spain, 1862,
Kingstown
 Victoria and Albert, steam yacht, Capt.
H.S.H Prince Leiningen, G.C.B.,
1860
 Vulture, 3, Com. R. Cay, 1866 E Indies
 Wizard, 2, Lieut.-com. H. Edwards,
1861, Mediterranean
 Wolverine, 17, Capt. H. B. Wratishaw,
1865, East Indies
 Woodlark, 3, Com. J. F. Luttrell, 1865,
N. America and W. Indies
 Zealous, 20, ironclad, Capt. F. A. Hume,
1865, Flag of Rear Admiral A.
Farquhar, Passage home
 Zebra, 7, Com. Hon. A. D. S. Denison
1866, China

STATIONS OF THE BRITISH ARMY.

(Corrected up to the 25th January, 1873, inclusive.)

The numbers placed after the station indicate the regiment to which the Depot companies are attached.

1st Life Guards—Regent's Park	8th do. (1st bat.)—Bengal, (2nd bat.)
2nd do.—Hyde Park	Do. (2nd bat.) Preston
Royal Horse Guards—Windsor	9th do. (1st bat.)—Guernsey
1st Dragoon Guards—Dublin	Do. (2nd bat.)—Shorncliffe
2nd do.—Brighton	10th do (1st bat.)—Hongkong (Depot bat)
3rd do.—Maidstone	Do. (2nd bat.)—Burmah, (2nd bat. 7th)
4th do.—Dundalk	11th do (1st bat)—Bengal, (2nd bat.)
5th do.—Manchester	Do. (2nd bat.) Glasgow
6th do.—Aldershot	12th do. (1st bat.)—Athlone
7th do.—Norwich	Do. (2nd bat.)—Bengal, (1st bat.)
1st Dragoons.—Dublin	13th do. (1st bat.) Malta, (2nd bat)
2nd do —Edinburgh	Do. (2nd bat.)—Dublin
3rd Hussars—Bombay, Canterbury	14th do. (1st bat.)—Bengal, (2nd bat.)
4th do—Bengal, do.	Do. (2nd bat.)—Chester
5th Lancers—Bengal. do.	15th do (1st bat)—Cork
6th Dragoons—Cahir	15th do. (2nd bat.)—Gosport
7th Hussars—Hounslow	16th do. 1st bat.)—Jersey
8th do.—Longford	Do. (2nd bat.)—Aldershot
9th Lancers—Woolwich	17th do (1st bat.)—Bengal, (2nd bat.)
10th Hussars—Colchester	Do. (2nd bat.)—Devonport
11th Hussars—Bengal, Canterbury	18th do. (1st bat.)—Malta (2nd bat.)
12th Lancers—Leeds	Do. (2nd bat.)—Aldershot
13th Hussars—Aldershot	19th do (1st bat.)—Gosport Forts
14th do.—Newbridge	Do. (2nd bat.)—Bengal, (1st bat.)
15th Hussars—Bombay, Canterbury	20th do. '1st bat)—Newry
16th Lancers—Madras, do.	Do. (2nd bat.)—Buttevant
17th do.—Ballincollig	21st do. (1st bat.)—Madras, (1st. bat.)
18th Hussars—Madras, Canterbury	23rd)
19th do.—Aldershot	Do. (2nd bat.)—Burmah, (2nd bat. 11th)
20th do.—Bengal, Canterbury	22nd do. (1st bat.)—Aldershot
21st do.—Bengal, do.	Do. (2nd bat.)—Fermoy
Grenadier Guards (1st bat)—Wellington Barracks	23rd do. (1st bat.)—Pembroke
Do —(2nd bat)—Tower	Do. (2nd bat.)— Mullingar
Do.—(3rd bat)—Chelsea Barracks	24th do. (1st bat.)—Gibraltar (dep bat.)
Coldstream Gds. (1st bat.)—Wellington Barracks	Do. (2nd bat.)—Madras, ditto
Do.—(2nd bat.)—Dublin	25th do. (1st bat.)—Curragh
Scots Fusilier Gds. (1st bat.)—Chelsea	Do. (2nd bat.)—Bengal, (1st. bat.)
Do.—(2nd bat.)—Tower	26th do.—Bengal, (99th)
1st Foot (1st bat.)—Aldershot	27th do.—Gosport
Do.—(2nd bat.)—Bengal, (1st. bat. 1st)	28th do.—Malta (94th)
2nd do. (1st bat.)—Bombay, (2nd bat.)	29th do.—Barbadoes, (77th)
Do. (2nd bat)—Devonport	30th do.—Aldershot
3rd do. (1st bat.)—Bengal, (2nd. bat.)	31st do —Gibraltar, (101st)
Do. (2nd bat.)—Dover	32nd do.—Cape of Good Hope (90th)
4th do. (1st bat.)—Portsmouth	33rd do.—Colchester
Do. (2nd bat.)—Woolwich	34th do—Curragh
5th Foot (1st bat.)—Bengal, (2nd bat.)	35th do.—Sheffield
Do. (2nd bat.)—Kilkenny	36th do.—Bengal, (1st bat. 23rd)
6th do. (1st bat.)—Bengal, (2nd bat.)	37th Foot—Bengal, (104th)
Do. (2nd bat.)—Curragh	38th do.—Dover
7th do. (1st bat.)—Aldershot	39th do.—Bengal, (depot bat.,
Do. (2nd bat.)—Cork	40th do.—Bengal (2nd bat. 8th)
	41st do. —Bengal, (1st bat. 23rd)
	42nd do —Devonport

43rd do.—Madras (2nd bat. 7th)	79th do.—Parkhurst, (103rd)
44th do.—Madras (depot bat.)	80th do.—Singapore (2nd bat. 20th)
45th do.—Madras, (94th)	81st do.—Gibraltar (27th)
46th do.—Aldershot	82nd do.—Chatham
47th do.—Fleetwood	83rd do.—Bombay (depot bat.)
48th do.—Madras, (depot bat.)	84th do.—Curragh
49th do.—Bombay, (95th)	85th do.—Bengal, (3rd)
50th do.—Colchester	86th do.—Cape, (61st)
51st do.—Bengal (50th)	87th do.—Nova Scotia, (1st bat. 12th)
52nd do.—Malta, (103rd)	88th do.—Aldershot
53rd do.—Bermuda, (33rd)	89th do.—Madras, (2nd bat. 22nd)
54th do.—Bengal (depot bat.)	90th do.—Aldershot
55th do.—Bengal, (47th)	91st do.—Fort George
56th do.—Bombay (33rd)	92nd do.—Bengal, (91st)
57th do.—Kinsale	93rd do.—Edinburgh
58th do.—Bengal (88th)	94th do.—Newport
59th do.—Bombay, (47th)	95th do.—Aldershot
60th do. (1st bat.) Nova Scotia (4th bat.)	96th do.—Bengal (101st)
Do. (2nd bat.)—Bengal, do.	97th do.—Dublin
Do. (3rd bat.)—Aden do.	98th do.—Templemore
Do. (4th bat.)—Winchester	99th do.—Shorncliffe
61st do.—Enniskillen	100th do.—Portsmouth Hill Forts
62nd do.—Bengal, (2nd bat. 17th)	101st do.—Manchester
63rd do.—Bengal (Depot Bat.)	102nd do.—Parkhurst
64th do.—Limerick	103rd do.—Aldershot
65th do.—Bengal (84th)	104th do.—Portsmouth
66th do.—Bombay, (46th)	105th do.—Bengal, (50th)
67th do.—Burmah (1st bat. 4th)	106th do.—Bengal, 35th)
68th do.—Bombay (35th)	107th do.—Bengal, (104th)
69th do.—Bermuda. (Chatham)	108th do.—Bombay, (97th)
70th do.—Bengal (100th)	109th do.—Bengal, (2nd bat. 20th)
71st do.—Gibraltar, (Fort George)	Rifle Brigade (1st bat.)—Dover
72nd do.—Bengal ditto	Do (2nd bat.)—Birr
73rd do.—Ceylon, (35th)	Do. (3rd bat.)—Portsmouth
74th do.—Malta, (42nd)	Do (4th bat.)—Dublin
75th do.—Cape of Good Hope, (57th)	1st West India Regiment—Jamaica
76th do.—Madras, (depot bat.)	2nd do.—Demerara
77th do.—Portland	Ceylon Rifle Regiment—Ceylon & China
78th do.—Belfast	Royal Malta Fencible Artillery—Malta

Depot Battalion, Chatham.

ROYAL ARTILLERY.

A Horse Brigade—Peshawur	11th Brigade—Sheffield
B do.—Aldershot	12th do.—Plymouth
C do.—Woolwich	13th do.—Mean Meer
D do.—Bangalore	14th do.—Newcastle
F do.—Umballah	15th do.—Gibraltar
Depot, R.H.A.—Maidstone	16th do.—Barrackpore
1st Brigade—Woolwich	17th do.—Dover
2nd do.—Ceylon	18th do.—Kirkee
3rd do.—Halifax	19th do.—Meerut
4th do.—Dublin	20th do.—Secunderabad
5th do.—St. Thomas's Mount	21st do.—Portsmouth
6th do.—Bombay	22nd do.—Woolwich
7th do.—Portsmouth	23rd do.—Kamptee
8th do.—Lucknow	24th do.—Morar
9th do.—Ahmedabad	1st Depot do.—Sheerness
10th do.—Malta	2nd do.—Woolwich

PROMOTIONS AND APPOINTMENTS.

NAVY.

Admiralty, Dec. 16, 1872.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870:—

Assistant Paymaster Warden H. E. Roberts has this day been placed on the Retired List.

In accordance with the provisions of Her Majesty's Order in Council of August 9, 1872:—

Navigating Sub Lieutenant Robert H. C. Hebden has been placed on the Retired List, from the 12th inst.

The undermentioned Officers have this day been promoted to the rank of surgeon in Her Majesty's Fleet:—

Joseph Halpin, Henry Scott Lauder, Henry Frederick Nathan.

Dec. 20.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 5, 1872:—

Sub Lieutenant Arthur W. Brazazon has this day been placed on the Retired List of his rank.

Narcissus G. Arguimbau, Esq., has been authorised to assume the rank of retired commander from the 30th November last, the date of his being placed on the Retired List.

Dec. 21.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870:—

Captain Charles B. C. Dent has been placed on the Retired List of his rank from the 17th inst.

Dec. 23.

Edward Charles Taylor Youel, Esq., has this day been promoted to the rank of staff captain in Her Majesty Fleet.

John James Atkins Gravener, Esq., has this day been promoted to the rank of commander in Her Majesty's Fleet, with seniority of 19th inst.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870.

Lieutenant Blair S. Hamilton has this day been placed on the Retired List, with permission to assume the rank of retired commander.

Dec. 27.

Sub Lieutenant C. F. Oldham has been promoted to the rank of lieutenant in Her Majesty's Fleet, with seniority of the 18th inst.

Dec. 30.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Lieut. the Right Hon. C. E. Lord Gravel, has been placed on the Retired List of his rank from the 27th inst.

The following promotions have been this day made:—

Sub Lieutenants T. C. Heathcote, H. M. C. Festing, F. Hutchinson, J. M. Bance, J. Phelps, A. O. Hill, Wm. H. Pigott, E. H. Arden, H. Crawford, A. H. O. P. Lowe, R. C. Bloomfield, C. Lewes, R. D. B. Bruce, E. C. Moore, R. W. Fawkes, A. Baring, E. R. Brietzeke, H. B. C. Wynyard, H. L. F. Royle, T. A. Hamilton, D.

T

M'Nab Riddel, J. N. Nugent, W. H. G. Goodlake, W. H. C. Chamberlaine, R. B. Maconochie, W. S. Goodrigde, F. E. Ramsden, G. O'Connor, C. Corbet, J. E. T. Nicolls, E. A. Ommaney, J. W. B. Reeve, G. Neville, R. Hoggan, and H. J. May, to be lieuts. in Her Majesty's Fleet.

W. G. J. Ayre, has this day been promoted to the rank of staff surg. in Her Majesty's Fleet, with seniority of Nov. 25, 1872.

Dec. 31.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Lieut. W. P. Barrow has this day been placed on the Retired List, with permission to assume the rank of retired commander; Surg. J. R. Anderson has been placed on the Retired List from the 27th inst.

Jan. 2, 1873.

E. Mourilyan, Esq., has this day been promoted to the rank of staff com. in Her Majesty's Fleet, with seniority of December 24, 1872.

Jan. 3.

The retirement of Com. H. W. Mist, as notified in the *London Gazette* of June 28 last, has been cancelled, and he has been placed on the Retired List from Oct. 5, 1872, with permission to assume the rank of retired captain from that date; J. H. Ellis, Esq., has this day been promoted to the rank of staff com. in Her Majesty's Fleet, with seniority of Dec. 30, 1872; T. H. Knott, Esq., has this day been promoted to the rank of surg. in Her Majesty's Fleet, with seniority of Dec. 31, 1872.

Jan. 8.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Staff Com. R. P. Forbes has this day been placed on the Retired List, with permission to assume the rank of retired captain from the date of his retirement; Lieutenant W. C. Haynes has this day been placed on the Retired List of his rank.

Jan. 9.

In accordance with the provi-

sions of Her Majesty's Order in Council of Feb. 22, 1870, the undermentioned officers have this day been placed on the Retired List:—Assistant Paymasters: R. J. H. Tucker, F. H. Page, D. J. Low, D. C. Stephens.

Jan. 10.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Staff Surg. W. B. Dalby has been placed on the Retired List from 7th inst.

Jan. 13.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Com. R. H. Thompson has this day been placed upon the Retired List of his rank.

The undermentioned officer has been promoted to the rank of Lieut. in Her Majesty's Fleet, with seniority of Dec. 30, 1872:—Sub Lieut. C. W. Dickinson.

Jan. 14.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Staff Captain T. C. Pullen has been placed on the Retired List from Dec. 1872, with permission to assume the rank of retired captain from the date of his retirement.

Jan. 15.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Com. W. A. Smyth has this day been placed on the Retired List, and allowed to assume the rank of retired captain.

Jan. 21.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870:—

Commander H. H. M. Magrath has been placed on the Retired List of his rank from the 18th inst.

Jan. 22.

John Rainforth Walker, has this day been appointed a naval instr. in Her Majesty's Fleet.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870:—

Staff Surgeon Christopher K.

Ord has been placed on the Retired List from the 18th inst.

Jan. 23

The undermentioned officers have this day been promoted to the rank of Navigating Lieutenant in Her Majesty's Fleet:—

Theodore George Fenn, Sidney Smith, Richard William Evelyn Middleton, William H. Stephens, Bertram Edmund Gwynne, John Alford Jones, James Richard Veitch.

Captain—Frank T. Thomson, to be capt. of the Royal Naval College at Greenwich,

Commanders—J. R. Palmer, to Valiant, as inspecting commander of Coastguard, vice Buckle. John Liddell, to Swallow, vice Silverlock, invalided; William R. Boulton, to Kestrel (when commissioned); C. R. Buckle, to Frolic (when commissioned); Robert H. Thompson, to Valiant, as inspecting com. of Coastguard, vice Buckle, appointed to Frolic; Stanhope Grove, to Achilles.

Staff Commanders in Command—James Kiddle, to Salamander, vice Youel, promoted to staff captain; Robert L. Cleveland, to Vigilant; Richard C. Dyer, to Audacious.

Lieutenants—Frederic Ralph Carr, to Excellent; Francis R. P. Kemp, to Glasgow; Frederic V. Isaac, to Orontes; James F. Baker, to Asia; Edward G. Elwes, to Tamar; Henry P. T. Skinner, and Alfred C. Carew, to Serapis; James C. C. Dennis, to Aurora (from Achilles); Edward S. Evans, to Achilles (from Aurora); Lionel Fanshawe, to Racoon; Rowland M. Sperling, Charles E. Read, and Ernest Neville Rolfe, to Devastation; John E. Greenhow, to Tamar; Frank E. Hudson, to Reindeer; Charles R. C. Hamilton, to Jumna; Francis Powell, and Herbert C. Sayce, to Cambridge; Richard H. Byron, Lenox Napier, Edmund B. Wallace, and John H. Henderson, to Excellent; Edward Wickham, to Asia; Charles E. Bell, to Frolic; Henry C. Walker, from St. Vincent to Dædalus; Robert

H. Paul, to St. Vincent; Charles Gardner, to Kestrel; Henry C. Wallis, to Aboukir; Albert J. O'Rorke, and George P. C. Gray, to Danae.

Navigating Lieutenants—B. S. Bradley, to Racoon; Henry E. Wood, to Sirius; Robert Towers, to Vigilant.

Sub Lieutenants—Francis S. Jackson, to Glasgow; Gilbert E. Harrison, to Iron Duke; Charles Windham, to Royal Adelaide (supernumerary for disposal); A. A. Taylor, Francis T. Brooke, and William C. Forrest, to Valorous; Richard Keown, to Duke of Wellington; Charles J. Reddie, to Favorite; Charles W. P. Bouverie, to Frolic; James S. Muggeridge, to Kestrel; Ernest G. Rason, to Seagull; Edwin J. Gallwey, and William H. Goodlake, to Favourite; F. L. Lawrence, to Favourite; W. Drake, to Aurora; Henry D. Barry, James St. C. Bower, G. R. Maltby, Francis D. S. Scott, Tom B. Ficklin, Francis G. Olliver, and George E. Coke, to Devastation; Castel Sherard, and Barton R. Bradford, to Aurora.

Navigating Sub Lieutenants—Henry Grey, to Kestrel; Francis A. Symes, to Frolic.

Midshipmen—H. W. Savory, to Duke of Wellington; James H. C. East, to Aurora; H. N. Thomson, to Aurora; Chas. E. Hogg, to Clio; Charles E. Baxter, to Endymion (as supernumerary); Alexander E. Bethell, to Immortalite.

Naval Cadets—Arthur K. Moore, to Aurora; Philip E. Fisher, to Narcissus; Egerton B. Cleeve, to Immortalité; Harry Rivers, to Endymion; Ernest L. Austen, to Doris; Edmund W. Yorke, Edward H. Blair, Robert J. Kidd, and Robert G. Fraser, to Royal Alfred.

Chaplains—The Rev. Henry M. Jackson, to Asia; the Rev. Wm. A. Rutherford, D.D., to Pallas.

Assistant Surgeons—Charles Davidson, M.B., to Kestrel; John Allen, to Frolic.

Assistant Paymasters—Charles

de B. Stewart, to Aboukir; Alfred H. Sherris, to Hector.

Chief Engineers—W. Austen, to Jumna; Patrick G. Lambert, to Indus (for service in Lord); James Harwood, to Asia (for service in Portsmouth Steam Reserve); William Gill, (from Jumna), William F. Capps, (from Lord Clyde), and John H. Treliving, to Indus (for service in Devonshire); John Snell to Pembroke; T. Singer, to Tamar; T. Crossman, to Daphne.

Engineers — John Watson, to Favourite; Charles Allsopp, to Frolic; Henry M. G. Pellew, to

Kestrel; John W. Nott, to Fire Queen; John M. Watson, to Glasgow (additional, for disposal); W. Walker (b), (acting), to Frolic; Benjamin J. Brown (acting), to Kestrel.

ROYAL MARINES.

Admiralty, Jan. 6, 1873.

Royal Marine Light Infantry—The Christian names of Captain Blanckleys, which have hitherto been erroneously recorded as Horatio Nelson Charles, to read in future Horatio Charles Nelson.

ARMY.

THE ARMY GAZETTE.

War Office, Pall Mall, Dec. 31, 1872.

Where not otherwise specified the following commissions and announcements bear date Jan. 1, 1873:—

4th Hussars—Edward James F. Wood, to be sub lieutenant, in succession to Lieut. Dawes, appointed a Probationer for the Indian Staff Corps on Oct. 31, 1872.

10th Hussars—Lieut. the Hon. C. C. W. Cavendish, from the Coldstream Guards, to be lieutenant.

13th Hussars—Lieut. M. Bieber to be captain, vice Webb, retired; Dec. 11, 1872. Lieut. W. Christie to be adjutant, vice Lieut. Morrissey, resigned.

14th Hussars—Maj. W. Arbuthnot retires upon temporary half pay; Capt. the Hon. John St. Vincent Saumarez retires from the service, receiving the value of his commission.

15th Hussars—William Henry Biggs, gentleman, to be sub lieutenant, in succession to Lieut. Rennell, deceased.

1st Foot—William Henry Bond, gentleman, to be sub lieutenant, in succession to Lieut. Derman, retired.

9th Foot—Lieut. Col. and Brevet Col. T. E. Knox, C.B., retires upon half pay.

15th Foot—Lieut. A. Crowe retires from the service, receiving the value of his commission. Lieut. Alfred Lovell Simons, from the 1st West India Regiment, to be lieutenant, vice W. C. Bellers, who exchanges.

20th Foot—Lieut. Col. J. Davis, from the 37th Foot, to be lieutenant-colonel, vice Brevet Colonel H. R. Browne, who exchanges.

24th Foot—Staff Surg. Major J. L. Holloway to be surgeon, vice Surg. Major Coates, M.D., appointed to the Staff.

35th Foot—Lieut. C. Tyrrell Cavendish retires from the service, receiving the value of his commis-

sion; Herbert L. Sapte, gentleman, to be sub lieutenant.

37th Foot—Lieut. Colonel and Brevet Col. H. R. Browne, from the 20th Foot, to be lieutenant-colonel, vice Davis, who exchanges.

47th Foot—Samuel Yates Holt Davenport, gentleman, to be sub lieutenant.

49th Foot—Arthur Courtenay Woolcombe Boyce, gentleman, to be sub lieutenant, in succession to Lieut. Balfe, appointed a Probationer for the Indian Staff Corps on Oct. 17, 1872.

52nd Foot—Staff Surg. W. R. Burkett to be surgeon, vice Hoystead, appointed to the Staff.

53rd Foot—Capt. A. K. French, V.C., retires from the service, receiving the value of his commission.

57th Foot—Augustus W. Hill, gentleman, to be sub lieutenant.

58th Foot—Lieutenant C. H. S. Gambier has been appointed a Probationer for the Indian Staff Corps; Oct. 31, 1872.

61st Foot—Captain F. J. W. P. Long retires from the service, receiving the value of his commission.

63rd Foot—Major J. E. D. Hill retires upon temporary half pay.

64th Foot—Sub Lieut F. G. A. Wiehe to be lieutenant; Oct. 28, 1871,

66th Foot—Captain G. Priestley retires from the service, receiving the value of his commission.

68th Foot—Staff Assist. Surg. O. F. Molloy to be assistant surgeon, vice Codrington, appointed to the Staff.

74th Foot—Capt. N. M. MacLeod retires from the service, receiving the value of his commission.

91st Foot—Major H. Wood retires from the service, receiving the value of his commission. H. Snowdon Severne, gentleman, to be sub lieutenant.

97th Foot—Lieut. M. R. Healy, from half pay, late 1st West India

Regt., to be lieut., vice Partridge, promoted.

101st Foot—James G. Cooke, gent., to be sub lieut.

102nd Foot—Sergt. Maj. G. F. Stenson, to be qrmr., vice Moore, deceased.

105th Foot—Lieutenant S. Byng retires from the service.

109th Foot—Lieut. R. Gordon, from the Supernumerary List, to be lieutenant, vice Macpherson, appointed a Probationer for the Indian Staff Corps; Oct. 29, 1872. Staff Assist. Surg. S. Flood to be assist. surg., vice Ussher, M.B., appointed to the Staff.

1st West India Regiment—Lieut. W. C. Bellers, from the 15th Foot, to be lieut., vice Simons, who exchanges.

2nd West India Regiment—Lieut. C. H. Warner to be instr. of musk., vice Lieut. Irwin, retired from the service; Nov. 2, 1872.

Control Department.

Assist. Cont. J. D. N. St. George is placed on retired pay, he having completed the necessary service; Nov. 11, 1872.

Comm. H. P. Hunt to be assist. cont., vice St. George; Nov. 11, 1872.

Supply and Transport Sub Department—Deputy Comm. M. J. Ingram to be comm., vice Hunt; Nov. 11, 1872. Assistant Comm. G. E. Lane to be dep. comm., vice Ingram; Nov. 11, 1872. The first Christian name of Sub Assistant Comm. Smith appointed in the *Gazette* of August 13, 1872, is Edmund, and not Edward, as then stated.

Pay Sub Department—Deputy Paymr. G. Wilgress is placed on the Retired List, he having completed thirty years' service; Assist. Paymr. H. Potter to be dep. paymr., vice Wilgress.

Medical Department.

Surgeon Major J. Coates, M.D., from the 24th Foot, to be staff surg. major, vice Holloway, appointed to the 24th Foot; Surg. T. N. Hoysted, from the 52nd Foot, to be staff surgeon, vice Burkitt, appointed to the 52nd Foot; Assist Surg. O. Codrington,

from the 68th Foot, to be staff assist. surg., vice Molloy, appointed to the 68th Foot; Assist. Surgeon J. H. Ussher, M.B., from the 109th Foot, to be staff assist. surg., vice Flood, appointed to the 109th Foot; Staff Surg. J. Munday retires upon temporary half pay; Dec. 1, 1872. Staff Assist. Surg. J. F. Blake, M.B., retires upon temporary half pay; Dec. 3, 1872.

Brevet.

Dep. Comm. Gen. H. B. Morse, on retired pay, to have the hon. rank of comm. gen.; April 1, 1869.

To have the honorary rank of majors—Paymr. and Hon. Capt. J. Falls, 8th Foot; Dec. 4, 1872. Paymr. and Hon. Captain G. C. Gooch, 18th Foot; Dec. 9, 1872.

Memoranda.

The undermentioned officers retire from the service, receiving the value of their commissions, viz.:—Major M. E. Smith, half pay, late Staff Officer of Pensioner; Capt. and Brevet Major W. H. Graves, half pay, late 18th Foot; Major F. Drage, half pay, late Depôt Battalion; Major L. J. de R. D'A. Costa de St. Laurent, half pay, late 41st Foot.

India Office, Jan. 3.

Her Majesty has been pleased to approve of the following transfer to the Half Pay List:—

BOMBAY STAFF CORPS.

Captain E. H. Ashe; Dec. 31, 1872.

THE MILITIA GAZETTE.

War Office, Pall Mall, Dec. 31, 1872.

Where not otherwise specified, the following appointments and commissions bear date January 1, 1872,

Cornwall Rangers—Arthur W. Baker, gent., late Lieutenant 66th Foot, to be capt.

Royal Cumberland—Lieut. J. T. Middleton resigns commission.

Devon Artillery—Sir George Stucley Stucley, Bart., late Lieut. Col. Comm., to be hon. col.

The Essex Rifles—Joseph Edward Savill, gent., late Lieut. 34th Foot, to be lieut. (supy.).

Royal Glamorgan Artillery—Capt. and Adj. W. Young resigns commission, and is placed on a retired allowance, also is granted the hon. rank of major on retirement.

Royal North Gloucester—For Lieut. G. Milward to be capt., vice Wykeham, who resigns, dated Nov. 4, 1872, as notified in the *Gazette* of Dec. 3, 1872, read Lieut. G. Milward to be capt., vice Wykeham, who resigns; Dec. 4, 1872.

7th Royal Lancashire—Captain W. H. Ivimy resigns commission.

1st, or Royal East Middlesex—Edward Worrell Graham Gardiner, gent., to be lieut. (supy.).

Northumberland—Lord Arthur Cecil to be lieut. (supy.). Lord Lionel Cecil to be lieut. (supy.).

Royal Pembroke Artillery—For Major W. H. Lewis is permitted to retain his rank, and to continue to wear the uniform of the regiment on retirement; dated July 31, 1872, as notified in the *Gazette* of July 30, 1872, read Major W. H. Lewis is granted the hon. rank of lieut. col., also is permitted to continue to wear the uniform of the regiment on retirement; dated June 12, 1872.

The (King's Own) 1st Stafford—Capt. C. N. Lane is granted the hon. rank of major.

1st Royal Surrey—Frederick E. Lonsdale, gent., late Lieut. 49th Foot, to be capt.

Royal Sussex—Lord Edmund Bernard Fitzalan Howard to be lieut. (supy.).

2nd Royal Tower Hamlets—Lieut. W. P. Hyland to be capt.

3rd West York—Captain J. B. Chantrell is granted the hon. rank of major.

4th West York—Capt. J. Hartley to be major, vice Waud, resigned.

The Royal Aberdeenshire Highlanders—Lieut. W. V. Hopegood resigns his commission; Nov. 23, 1872.

Antrim Artillery—Capt. E. A. Hannay to be major, vice the Viscount Massareene, promoted.

Galway—Lieut. T. A. Joyce to be capt.

Limerick County—Lieut. W. T. Monsell resigns commission.

The Prince of Wales' Regiment of Longford Rifles—Lieut. D. G. C. Jones resigns commission.

Monaghan—Lieut. M. Bleakeley resigns commission.

Yeomanry Cavalry,

Shropshire—Captain E. Wright resigns commission.

Staffordshire—Cornet C. J. Stephens to be lieut., vice Wolferstan, promoted.

THE VOLUNTEER GAZETTE.

War Office, Dec. 31, 1872.

Where not otherwise specified, the following commissions and announcements bear date Jan. 1, 1873:—

1st Administrative Battalion Aberdeenshire Rifles—Lieut. Col. Sir W. Forbes, Bart., to bear the title of lieut. col. comm.

6th Aberdeenshire Rifles—The Rev. T. Young, B.B., to be acting chap.

13th Aberdeenshire Rifles—Lieut. J. Thomson resigns commission. Ensign J. Hutcheon to be lieut., vice Thomson.

21st Aberdeenshire Rifles—Captain A. Cochran to bear the title of capt. comm.

1st Adm. Brigade Banffshire Artillery—Henry Adams, Esq., late Capt. and Adj. 1st Administrative Brigade Middlesex Artillery Volunteers, to be adjt.; Dec. 19, 1872. Adj. Adams to serve with the rank of capt., under the provisions of Article 196, Regulations for the Volunteer Force; Sept. 18.

3rd Cambridgeshire Rifles—Capt. L. B. Edgar resigns commission. Reginald Henry Cusack, gent., to be ens., vice Roumieu, resigned.

4th Adm. Batn. Cheshire Rifles—Lieut. Col. W. J. Legh resigns commission.

4th Cheshire Rifles—Captain J. Mayer resigns his commission.

29th Cheshire Rifles—Hon. Assistant Surg. P. Downes, M.D., resigns commission.

2nd Cinque Ports Artillery—First Lieut. S. Penfold to be capt., vice Jeffery, resigned. Second

Lient. H. Poole to be first lieut., vice Penfold.

3rd Cornwall Artillery—Captain W. Hicks resigns commission.

10th Devonshire Rifles—Ensign W. Francis resigns commission.

18th Devonshire Rifles—Ensign P. Burd to be lieut., vice Pearse, promoted.

2nd Dumbartonshire Rifles—Ensign J. Steel resigns his commission. James Begg, gent., to be ensign, vice Steel.

10th Dumbartonshire Rifles—Capt. D. P. Stewart, resigns commission. Donald Patrick Stewart, gent., to be acting assist. surgeon. Ens. D. Findlay to be capt., vice Stewart. Lieut. R. Murdock resigns commission. Richard Sandeman, gent., to be sub lieut., vice Murdock. Alexander Duncombe Campbell, gent., to be ens., vice Findlay. Hon. Chaplain the Rev. J. A. Campbell resigns commission. The Rev. W. Wallace to be acting chaplain.

11th Dumbartonshire Rifles—Ens. A. Whitecross to be capt. William Stevenson, gent., to be lieut., vice Coutts, resigned. John Longwill, gent., to be ens., vice Whitecross.

1st Durham Rifles—William E. Harrison, gent., to be ens., vice Kirk, promoted.

13th Durham Rifles—J. Todd, gent., to be lieut., vice Perkins, promoted.

1st Edinburgh Artillery—First Lieut. G. Melville resigns commission.

5th Essex Rifles—Captain R. P. Drew, W. J. Nixon, H. Beams, D. Elliott, and R. Toyne resign commissions. Lieuts. F. E. Duckham and J. Self to be capt. Ensign C. Capper, jun., to be capt. James Thomson Ritchie, Esq., and Frederick George Lloyd, Esq., to be capt. Anthony Palmer, V.C., gent., to be lieut.

4th Fifeshire Artillery—Captain W. Elder resigns commission.

1st Fifeshire Rifles—Ens. G. R. Anderson to be lieut., vice Simpson, retired.

1st Forfarshire Artillery—James

Binney Webster, gent., to be sec. lieut.

4th Forfarshire Artillery—First Lieut. A. H. Bell to be capt., vice Davidson, resigned. First Lieut. J. Nicoll to be capt., vice Zoller, resigned. First Lieuts. A. Malcolm and J. W. Bell resign commissions. Sec. Lieuts. J. Dick and D. R. Malcolm to be first lieuts.

1st Glamorganshire Artillery—Sec. Lieut. J. N. Richardson resigns commission.

3rd Gloucestershire Artillery—Richard Vassar Smith, gent., to be first lieut.

2nd Hampshire Rifles—Capt. R. Harfield resigns commission.

9th Kent Artillery—Stephen W. O'Neill, gent., to be sec. lieut.

29th Kent Rifles—Ens. G. W. Greenhill resigns his commission.

5th Kirkcudbrightshire Rifles—Arthur William Finlay, gent., to be lieut., vice Harkness, resigned.

5th Lanarkshire Rifles—Hon. Qrmr. T. Short resigns commission.

56th Lanarkshire Rifles—Capt. R. Rintoul resigns commission.

1st Lancashire Artillery—First Lieut. J. R. Evans resigns commission.

54th Lancashire Rifles—Ensign R. Wignall resigns commission.

2nd Lincolnshire Artillery—Capt. E. H. Clark resigns commission.

2nd London Rifles—Ens. C. B. Brown, to be lieut., vice Tisley, promoted; John Pass Scatliff, gent., M.D., to be assist. surg.

20th Middlesex Rifles—Lieut. E. J. Harty, to be capt.; Ens. T. C. Russel, to be lieut., vice Harty.

28th Middlesex Rifles—Lieut. W. Hudson resigns commission.

36th Middlesex Rifles—Ens. G. Hatch resigns commission.

38th Middlesex Rifles—Capt. C. E. Perugini resigns commission.

1st Midlothian Artillery—Capt. A. Edmouston resigns commission.

1st Norfolk Rifles—Lieut. C. E. Bolingbroke resigns commission.

10th Renfrewshire Rifles—Alexander James Macdougall, gent., to be ens.

4th Administrative Battalion

Staffordshire Rifles—Assist. Surg. J. Fraser, M.D., to be surg.; Assistant Surg. V. Jackson resigns commission.

1st Administrative Brigade Sussex Artillery—Hon. Chap. the Rev. J. Griffiths resigns commission; the Rev. J. Hannah, D.C.L., to be acting chap.

1st Sussex Rifles—Major V. R. Corrie and Capt. and Adj. C. F. Borrer resign commissions.

1st Tower Hamlets Rifles—Surg. W. T. G. Woodforde resigns commission; William T. G. Woodforde, gent., to be assist. surg.

6th Wilts Rifles—Lieut. T. K. Harding, Ens. E. S. Jefferys, and Hon. Chap. the Rev. R. Rowley, resign commissions.

13th Worcestershire Rifles—Lieut. R. C. Smith to be capt., vice Clarke, resigned.

20th Worcestershire Rifles—P. Ernest John Talbot, gent., to be ensign.

5th Administrative Battalion West Riding of Yorkshire Rifles—Lieut. Col. T. Brooke and Major F. Greenwood resign commissions.

6th West Riding of Yorkshire Rifles—Lieut. Col. F. Greenwood resigns commission; Lieutenant J. Bottomley to be capt.; Ensign H. Wigney to be lieut., vice Bottomley.

THE ARMY GAZETTE.

Where not otherwise specified the following commissions and announcements bear date Jan. 15, 1873:—

3rd Dragoon Guards—Captain W. J. Turner retires from the service, receiving the value of his commission.

13th Hussars—Thomas Tristrem Spry Carlyon, gent., to be sub lieut., in succession to Lieutenant Bieber, prom.

14th Hussars—The retirement upon temporary half pay on Jan. 1, of Major W. Arbuthnot, has been cancelled.

15th Hussars—Vet. Surgeon W. Walker from the Royal Artillery, to be vet. surg., vice M. F. Healy, who exchanges.

Royal Artillery—Staff Assistant

Surg. T. S. Cogan to be assistant surg., vice H. F. Paterson, M.D., promoted on the Staff. Vet. Surg. M. F. Healy, from the 15th Hussars, to be vet. surg., vice Walker, who exchanges.

Royal Engineers—Maj. J. Grant-ham retires on half pay. Captain A. K. Haslett to be adjutant vice Capt. B. Brine, whose period of service in that appointment expires on Jan. 21; Jan. 22. The temporary commissions as lieut. of the undermentioned officers to be made permanent, viz.:—L. Langley; July 23, 1870; C. B. Wilkieson; July 23, 1870. A. Hildebrand; Jan. 4, 1871.

4th Foot—Captain and Brevet Major H. J. Bower retires from the service, receiving the value of his commission.

6th Foot—Sergt. Instructor of Musketry Thomas George Lumsden, from the 28th Foot, to be sub. lieut., in succession to Lieutenant Turnbull, deceased.

7th Foot—Capt. E. Lonsdale, from the 49th Foot, to be captain, vice H. F. Oakes, who exchanges.

8th Foot—Llewellyn Salusbury Mellor, gent., to be sub lieut.

9th Foot—Major and Brevet Lieut. Col. H. J. Buchanan to be lieut., vice Brevet Col. E. Knox, C.B., retired on half pay. Capt. H. M. Beresford to be major, vice Buchanan; Jan. 1. Lieut. H. W. M. Baskerville, to be capt., vice Beresford; Jan. 1. Surg. A. F. Bartley having completed twenty years' full pay service, to be surg. major; Dec. 23, 1872.

17th Foot—Sub Lieut. E. Allfrey to be lieut.; Dec. 30, 1871.

25th Foot—Sub Lieut. T. J. A. Bather to be lieut.; Dec. 30, 1871.

38th Foot—Capt. C. C. Oldfield, from the 85th Foot, to be captain, vice H. P. Hurford, who exchanges.

40th Foot—Lieut. J. H. Sadler, from the 61st Foot, to be lieut., vice Thunder, whose restoration to full pay, from half pay, late 58th Foot, on Oct. 19, 1872, has been cancelled.

49th Foot—Capt. H. F. Oakes, from the 7th Foot, to be capt., vice E. Lonsdale, who exchanges.

53rd Foot—Lieut. C. H. Bonney to be capt., vice Ffrench, V.C., retired; Jan. 1.

54th Foot—Lieutenant W. B. Broughton, from the 99th Foot, to be lieut., vice Skey, retired on temporary half pay.

58th Foot—Frederic Savill Marsham, gent., to be sub lieut., in succession to Lieut. Hill, promoted.

61st Foot—Lieut. Col. and Brevet Col. J. P. Redmond, C.B., retires upon half pay. Lieut. the Hon. E. J. Chetwynd to be capt. vice Long, retired; Jan. 1. Sub. Lieut. A. A. C. Nelson to be lieut., Jan. 10.

63rd Foot—Major T. H. Clarkson, from half pay, late Depôt Battalion, to be major, vice Hill, retired upon half pay.

66th Foot—Lieut. G. W. M. Hall to be capt., vice Priestley, retired; Jan. 1.

74th Foot—Capt. F. N. Woodall, from half pay, late 74th Foot, to be capt., vice MacLeod, retired.

82nd Foot—Sub Lieut. F. C. J. Loder to be lieut.; Dec. 30, 1831.

85th Foot—Capt. H. P. Hurford, from the 38th Foot, to be captain, vice C. C. Oldfield, who exchanges.

91st Foot—Capt. A. C. Bruce to be major, vice Wood, retired; Jan. 1. Lieut. W. D. Caudwell to be capt., vice Bruce; Jan. 1.

97th Foot—Lieut. S. L. H. H. Finney, from the 59th Foot, to be capt., vice C. Hewett, retired.

99th Foot—Lieut. S. Lang, from 80th Foot, to be lieutenant, vice Broughton, transferred to the 54th Foot. Lieut. O. T. Cooch retires from the service, receiving the value of an ensigncy.

107th Foot—H. Read, gent., to be sub lieut., in succession to Lieut. R. T. Ommanney, deceased.

Medical Department—Staff Surg. C. M. M. Miller, M.D., having completed twenty years' full pay service, to be staff surg. maj.; Dec. 14, 1872. Assist. Surgeon H. F. Paterson, M.D., from the Royal Artillery, to be staff surg., vice J. Munday, placed upon half pay.

Half Pay—Major and Brevet Lieut. Col. R. B. Deering, from the

late Discharge Depôt, to be lieut. col.; Dec. 1, 1872. Lieut. J. S. Jeffares, from the 57th Foot, to be capt.; Jan. 15.

Brevet.

The undermentioned promotions to take place in her Majesty's Indian Military Forces, consequent on the death of General Henry L. Worrall, Bengal Cavalry, on Dec. 8, 1872:—

To be gen.—Lieut. Gen. E. Armstrong, Madras Infantry; Dec. 9, 1872.

To be lieut. gen.—Major Gen. J. E. Landers, Bengal Infantry; Dec. 9, 1872.

The following promotions to take place upon the British Establishment consequent on the death, on Dec. 8, 1872, of Gen. H. L. Worrall, Bengal Cavalry:—Brevet Col. W. R. Haliday, from Lieut. Col., half pay, late 36th Foot, to be maj. gen.; March 6, 1868, such ante-date not to carry back pay prior to Dec. 9, 1872. Major J. Jago, 74th Foot, to be lieut. col.; Dec. 9, 1872. Capt. W. Young, 49th Foot, to be major; Dec. 9, 1872.

The undermentioned officers having completed the qualifying service with the rank of Lieut. Col., to be cols., viz.:—Lieut. G. S. Tilly, Royal Engineers; Jan. 1. Lieut. Col. A. Cadell, Royal (late Bengal) Engineers; Jan. 1.

The undermentioned officers, who have retired on full pay, to have a step of honorary rank as follows; Jan. 15:—

To be maj. gen.—Brevet Colonel Sir T. Peyton, Bart., Madras S. C.

To be cols.—Lieut. Cols. T. Wheler, Bengal S. C.; Jan. 15; J. Morland, Bengal S. C.; and H. Dixon, Madras Infantry.

To be lieut. cols.—Major F. M. Raynsford, Madras S. C.; and R. Hunter, Madras Invalids.

To be dep. insp. gen. of hospitals—Surg. Major H. T. W. Harper, Madras Army.

Memoranda.

The undermentioned officers retire from service, receiving the value of their commissions:—Lt. Col. and Brevet Col. H. L. Maydwell, half pay, late Depôt Battalion.

Lieut. Col. and Brevet Col. J. D. Carmichael, C.B., half pay, late 94th Foot. Major and Brevet Lieut. Col. C. D. Rich, half pay, late 9th Lancers. Major W. A. Bailie, half pay, late 82nd Foot. Capt. T. M. B. Eden, half pay, late 50th Foot. Lieut. A. R. Warren, half pay, late 5th Lancers.

India Office, Jan. 14

Her Majesty has been pleased to approve of the undermentioned promotions amongst the officers of the Staff Corps and of her Majesty Indian Military Forces:—

Brevet.

To be colonel—Lieutenant Col. J. W. Rutherford, Madras Infantry; Aug. 11, 1872.

To be lieutenant colonel—Major C. Batchelor, Bengal Cavalry; June 10, 1872.

To be major—Capt. W. S. Hunt, Madras Staff Corps; July 6, 1872.

To be capt.—Lieuts. R. Thompson, Bengal Staff Corps, Dec. 11, 1870; G. Alexander, Bengal Staff Corps, December 30, 1870; W. P. O. Boulderson, Madras Staff Corps, June 1, 1872; F. A. Wilson, Bengal Staff Corps; June 8, 1872. A. Conolly, Bengal Staff Corps; June 8, 1872. V. Rivaz, Bengal Staff Corps; June 8, 1870. S. G. D. Turner, Bombay Staff Corps; June 8, 1872. C. E. Salked, Bengal Staff Corps; June 8, 1872. H. T. H. Baber, Madras Infantry; June 9, 1872. W. Wilmer, Bengal Staff Corps; July 3, 1872. H. B. Nangle, Madras Staff Corps; July 4, 1872. H. L. Berkley, Madras Infantry; July 12, 1872. E. H. Money, Bengal Staff Corps; July 16, 1872. J. Hotham, Madras Infantry; Aug. 21, 1872. H. A. Fletcher, Bengal Cavalry; Sept. 4, 1872. G. Nolan, Bengal Infantry; Sept. 14, 1872. G. Edmonds, Bengal Infantry; Oct. 5, 1872.

Captain A. R. D. Mackenzie, Bengal Cavalry, to be major, in succession to General T. Oliver, Bengal Infantry, deceased; April 23, 1872.

Captain E. M. Cherry, Madras Cavalry, to be major, in succession

to Lieut. Gen. J. Butler, Bengal Infantry, deceased; May 1, 1872.

Capt. F. M. Alexander, Madras Cavalry, to be maj., in succession to General J. Garnault, Madras Infantry, deceased; May 16, 1872.

Substantive Promotions.

BENGAL STAFF CORPS.

To be lieutenant colonels—Majors W. Smith; June 12, 1872. R. Stewart; June 12, 1872. J. A. Brereton; June 12, 1872. J. P. Cambridge; June 12, 1872. W. H. Paget; June 13, 1872. T. C. Hamilton; June 13, 1872. A. F. Corbett, June 13, 1872. G. C. Huxham; June 13, 1872. A. Combe; June 13, 1872. A. B. Johnson (Brevet Col.); July 27, 1872. A. A. Bruce; Aug. 15, 1872. H. E. Quin; Aug. 24, 1872. T. W. R. Boisragon; Sept. 2, 1872.

To be majors—Captains W. Musgrave; June 11, 1832. H. R. B. Worsley; June 13, 1872. E. R. C. Wilcox; June 13, 1872. E. Y. Walcott; June 20, 1872. A. McL. Stewart; June 20, 1872. J. C. C. Daunt, V.C.; July 20, 1872. J. T. Bushby; Aug. 10, 1872. J. J. Boswell; Aug. 10, 1872. H. E. Waller; Aug. 10, 1872. C. H. S. Scott, Brevet Major; Aug. 17, 1872. H. Tyndall; Aug. 20, 1872. R. Smith; Aug. 26, 1872. M. M. Proctor; Aug. 31, 1872. F. Allen; Sept. 30, 1872. J. Roberts; Sept. 27, 1872. W. G. Waterfield; Oct. 3, 1872. F. P. Luard; Oct. 12, 1872. A. Bruce; Oct. 20, 1872.

To be captains—Lieuts. J. E. Alexander; June 8, 1872. D. G. Pitcher, Brevet Capt.; June 30, 1872. J. R. Campbell; June 8, 1872. T. R. Cowie; July 4, 1872. T. Shepherd; Aug. 4, 1872. H. H. J. Nuthall, Brevet Capt.; Aug. 1872. F. Knowles; Sept. 4, 1872. G. R. J. Shakespear; Sept. 7, 1872. W. T. Stuart; Oct. 2, 1872. C. J. Walter; Oct. 2, 1872.

BENGAL ARMY.

Cavalry.

Major (Brevet Col.) L. J. Farquharson to be lieut. col.; May 1, 1872.

Late 3rd European Cavalry—
Capt. (Brevet Lieut. Colonel) C.
Batchelor to be major; Aug. 21,
1872.

Infantry.

To be lieut. cols.—Majors J. G.
Campbell; May 17, 1872. G. T.
Jones; Sept. 11, 1872.

Late 15th Native Infantry—
Captain L. E. Evans to be major;
May 17, 1872.

Late 18th Native Infantry—
Capt. (Brevet Maj.) G. D. Crawford
to be major; May 17, 1872.

Late 35th Native Infantry—
Capt. J. M. Stewart to be major;
Sept. 11, 1872.

Late 43rd Native Infantry—
Capt. W. R. Martin to be major;
May 17, 1872.

General List of Cavalry Officers.

To be captains—Lieut. (Brevet
Capt.) G. W. Willock; Feb. 14,
1872. Lieut. (Brevet Capt.) M. J.
Moore; Feb. 24, 1872. Lieut.
(Brevet Capt.) E. H. Curtis, May
1, 1872.

The undermentioned officers will
rank as follows:—Capt. R. T. M.
Lang from April, 1871. Capt. C.
W. Campbell from Jan. 17, 1872.

Medical Officers.

To be surgs. major—Surgs. S. C.
Townsend; June 1, 1872. W. B.
Beatson, M.D.; June 30, 1872. C.
T. Paske; Aug. 26, 1872. W. F.
B. Dalzel; Sept. 20, 1872. S. B.
Partridge; Oct. 12, 1872.

MADRAS STAFF CORPS.

To be lieut. cols.—Majors. H.
Biden; June 12, 1872. C. H.
Wilson; June 13, 1872. F. C.
Georges; June 13, 1872. D. G.
S. St. J. Grant; June 13, 1872. C.
S. Hearn; June 13, 1872. W.
Douglas; June 23, 1872. G. A.
Walker; June 23, 1872. E. G.
Campbell; Aug. 11, 1872.

To be majors—Capts. H. St. M.
Wynch; June 12, 1872. R. Griffith;
June 13, 1872. C. J. Stuart; July
20, 1870. W. M. Frazer; Aug.
20, 1872. E. F. H. Armstrong.
Sept. 20, 1872.

To be capts.—Lieut. J. S. F.
Mackenzie; June 8, 1872. Lieut.
S. L. Hunt; June 9, 1872.

MADRAS ARMY.

Late 6th Light Cavalry—Lieut.
H. W. Bird to be capt.; March 30,
1872.

Medical Officers.

Assist. Surg. D. Kearney to be
assist. surg.; July 15, 1872.

BOMBAY STAFF CORPS.

To be lieut. cols.—Majors R. M.
Bonner, June 13, 1872. M. R.
Haig; June 13, 1872. (Brevet
Lieut. Col.) F. P. Mignon; June
13, 1872. J. Gordon; June 13,
1872. H. F. Disbrowe; June 13,
1872. C. E. Naylor; June 13, 1872.
G. J. Melliss; June 13, 1872. W.
C. Lester; June 13, 1872. W. H.
Mason; June 13, 1872. C. W.
Wahab; June 13, 1872. E. M.
G. Cooper; June 13, 1872. G. A.
Laughton; July 3, 1872. J. L.
Sheppard; July 3, 1872. S. C.
Milford, July 4, 1872. H. F. Bol-
ton; Aug. 3, 1872. C. A. Collier;
Aug. 3, 1872. R. Mallaby; Aug.
3, 1872.

To be majors—Captains H. S.
Anderson, Brevet Major; April 8,
1870. C. Jameson; June 12, 1872.
P. W. Baunerman; June 13, 1872.
W. A. Gillespie; June 13, 1872. F.
J. T. Ross; June 13, 1872. G. B.
Crispin; July 20, 1872.

BOMBAY ARMY.

Infantry.

To be lieut. col.—Maj. G. H. W.
Fagan; April 17, 1872.

Late 16th Native Infantry—
Capt. F. S. Iredell to be major;
April 17, 1872.

General List of Infantry Officers.

To be captains—Lieuts. W. C.
Morris; March 12, 1872. C. J. A.
Yates; March 20, 1872. G. R. B.
Drummond; March 29, 1872.

Medical Officers.

To be surgs. maj.—Surgs. M. M.
Mackenzie; June 20, 1872. A. M.
Rogers; June 24, 1872.

Her Majesty has been pleased to
permit the undermentioned officer
to resign his commission:—Capt.
R. H. Ward, Bengal Infantry.

India Office, Jan. 14.

Her Majesty has been pleased to
approve of the undermentioned ad-
missions to the Staff Corps made

by the Governments in India—

BENGAL STAFF CORPS.

To be lieuts.—Lieuts. F. L. Graves, R. A.; June 24, 1863. C. C. Dyce, R. A.; Dec. 23, 1864. T. J. Baynes, 24th Reg.; Jan. 30, 1866. B. C. Graves, R. A.; Jan. 30, 1866. H. R. Le M. Carey, 6th Reg.; Dec. 4, 1866. F. R. Ditmas, R. A.; July 10, 1867. A. W. Gairdner, 109th Reg.; Jan. 22, 1868. L. B. Irwin, 3rd Reg.; Dec. 2, 1868. C. C. Egerton, 76th Reg.; Oct. 19, 1869. E. J. G. Lewis, 62nd Reg.; June 10, 1871.

MADRAS STAFF CORPS.

To be lieut.—Lieut. D. Cowie, R. A. (Madras); Dec. 9, 1859.

To be lieut.—Lieut. R. L. Price, R. A.; July 16, 1863.

Note.—Lieut. Arthur Howlett, admitted to the Madras Staff Corps, in *London Gazette* of Nov. 15 last, was of the 1st and not of the 109th Foot.

THE ARMY GAZETTE.

War Office, Pall Mall, Jan. 21.
Control Department.

Assistant Controller A. C. Crookshank to be deputy controller, vice J. C. Rowland, deceased; December 11, 1872. Assistant Controller F. G. Swan, from half pay, to be assistant controller, vice Crookshank; Jan. 22.

Pay Sub Department—E. B. Caddy from Commissariat Clerk, to be assistant paymaster, vice Potter, promoted; Jan. 1.

Supply and Transport Sub Department—Comm. L. R. Castray to retired pay, having completed thirty years' service: December 1, 1872. Deputy Comm. A. C. Ryland to be comm., vice Castray; December 1, 1872. J. Roe, from Commissariat Clerk, to be sub assistant comm.; December 1, 1872.

India Office, Jan. 22.

Her Majesty has been pleased to approve of the following promotions amongst the officers of the Staff Corps, and of her Majesty's

Indian Military Forces made by the Governments in India:—

Brevet.

To be Captain—Lieutenant A. F. Wilkinson, Madras Infantry.

Substantive Promotions.

MADRAS ARMY.

Infantry—To be lieutenant col., Major H. M. N. Beates, Sept. 29, 1872.

Late 1st Madras Fusiliers—Captain (Brevet Major) J. M. Williams to be major; Sept. 29, 1872.

Late 17th Native Infantry—Captain (Brevet Major) R. A. W. C. Stuart to be major; Sept. 29, 1872.

Late 38th Native Infantry—Captain (Brevet Major) C. J. Richards to be major; Sept. 29, 1872.

Late 45th Native Infantry—Captain (Brevet Major) C. A. Benson to be major; Sept. 29, 1872.

General List of Infantry Officers.

To be Captains, dated September 29, 1872—Lieutenants (Brevet Captains) F. H. Winterbotham. C. R. Bradstreet, R. E. Cox, R. T. Chapman, H. R. Ogilvie, H. R. Shelley, G. H. Weston, W. H. St. A. Wilton, J. E. F. Strettell, S. W. McIver.

Medical Officers.

To be Surgeon—Assistant Surgeon F. Duckworth, M.D., Oct. 1 1872.

BOMBAY STAFF CORPS.

To be Lieutenant Colonel—Major J. F. Robertson; January 3, 1872.

To be Major—Captain F. P. Bartholomew; Sept. 20, 1872.

To be Capt.—Lieut. J. M. Heath, Oct. 12, 1872.

BOMBAY ARMY.

General List of Infantry Officers.

The undermentioned officers will rank as follows:—Capt. R. Hennell, from Feb. 4, 1871; W. S. Hore, from Feb. 21, 1871; W. Laing, from March 25, 1871; M. W.

Stevens, from Aug. 19, 1871; C. T. Echalaz, from Oct. 24, 1871; W. C. Morris, from Oct. 31, 1871; C. J. A. Yates, from March 1, 1872; G. R. B. Drummond, from March 12, 1872.

Medical Officers.

To be Surgeons Major—Surgs. T. E. P. Martin: Oct. 9, 1872. J. P. Stratton, M.D.; October 20, 1872.

To be Surgeons — Assistant Surgeons P. S. Turnbull, M.D.; Oct. 1872. F. R. O'Kearney, M.D.; Oct. 1, 1872. H. A. Lewis, Oct. 1, 1872.

THE MILITIA GAZETTE.

War Office, Pall Mall, Jan. 21.

Where not otherwise specified the following commissions and announcements bear date Jan. 22, 1873 :—

Royal Berkshire—Major W. R. M. Thoyts resigns commission, and is permitted to retain his rank and to wear the uniform on retirement.

2nd Royal Cheshire—Lieut. E. A. W. S. Groves resigns commission.

2nd Derby—Capt. J. J. Barrow resigns commission; Lieutenant W. W. Jendwine to be capt., vice Barrow.

Royal Glamorgan—Edward A. William Stewart Groves, gent., from 2nd Royal Cheshire Militia, to be lieut.

East Kent—Quartermaster R. Jones resigns commission, also is placed on a retired allowance, and is granted the hon. rank of capt. on retirement.

West Kent—Captain W. F. P. Dadson resigns commission.

7th Royal Lancashire—The services of Lieutenant L. Rae are dispensed with.

Royal Montgomery—Capt. J. P. Harrison is granted the honorar rank of Major. Lieutenant P. M. Pryce resigns commission; Dec. 1872.

Shropshire—Lieut. H. R. Lovett resigns commission.

2nd Warwick—Lieutenant M. S. Foulger resigns commission: Dec. 4, 1872.

Royal Westmoreland—Charles Chamley Turner, gent., to be lieut. (supy.).

Antrim—Lieutenant Q. D. Hume to be captain, vice Clarke, resigned; Lieutenant A. M. Henderson to be captain, vice Williams, resigned.

Cavan—Lieut. J. H. de Ricci resigns commission, also is granted the honorary rank of lieutenant colonel, and is permitted to wear the uniform on retirement; Capt. and Honorary Major M. Paterson to be major, vice Butler; Lieut. H. M. M. MacMahon to be captain, vice Paterson; Captain A. O'Brien, 60th Foot, to be adjutant, vice Keane, resigned; Adj. O'Brien to serve with the rank of captain.

Wicklow—Capt. R. B. Hudson resigns commission.

YEOMANRY CAVALRY.

Royal 1st Devon—Cornet W. S. Northcote to be lieutenant, vice Acland, promoted; Alexander Kelso Hamilton, gent., to be cornet (supy.).

The Duke of Lancaster's Own—Cornet Lord F. C. Cavendish resigns commission.

Montgomeryshire—Major G. H. R. Charles, Marquis of Londonderry, resigns commission, also is permitted to retain his rank, and to wear the uniform on retirement; Captain. C. W. W. Wynn to be major, vice the Marquis of Londonderry; Cornet T. W. Gill to be capt., vice Wynn.

Westmoreland and Cumberland—Lieutenant. C. W. Wilson to be capt., vice Spencer, resigned; Cornet H. A. Spedding to be lieut., vice Wilson; St. George Henry, Viscount Lowther, to be cornet (supy.)

THE VOLUNTEER GAZETTE.

War Office, Jan. 24, 1873.

Where not otherwise specified the following commissions and announcements bear date Jan. 25, 1873.

1st Artillery—Second Lieutenant J. Macintyre to be

first lieutenant, vice Campbell, deceased.

3rd Argyllshire Artillery—Sec. Lieutenant J. Hunter to be first lieutenant, vice McCaig, promoted.

2nd Ayrshire Artillery—Andrew Smith, gent., to be first lieutenant.

4th Administrative Battalion Cheshire Rifles—William John Legh, Esq., to be honorary colonel. Major S. W. Wilkinson to be lieutenant colonel, vice Legh, resigned.

8th Cinque Ports Rifles—George Henry Mowll, gent., to be ens., vice Crundall, promoted.

1st Clackmannanshire Rifles—Captain R. Buchanan resigns commission.

1st Devonshire Artillery—Alf. Emmett, gent., to be first lieutenant. George Pigott Barton, gent., to be acting assistant surgeon.

11th Devonshire Artillery—R. Fenwick Elrington, gent. to be first lieutenant, vice May, resigned.

3rd Administrative Battalion Devonshire Rifles—John Gould, Esq., to be surg.

18th Devonshire Rifles—Lieut. P. Burd to be Captain. Honorary Assistant. Surg. J. Gould resigns commission.

7th Surrey Rifles—M. Beresford, Esq., to be honorary colonel. Lieut. F. B. Williams to be capt. Charles Clement Beardsley, gent., to be lieut.

10th Tower Hamlets Rifles—Henry Bacon, gent., to be lieut., vice Crook, promoted; Aug. 14, 1872.

13th Durham Rifles—Ensign C. F. Buchan resigns commission.

10th Essex Rifles—Ensign W. J. Butler resigns commission.

1st Fifeshire—John Shearer, gent., to be ensign, vice Anderson, promoted.

1st Gloucestershire Artillery Volunteer Corps—Captain. C. F. Hansom resigns commission; First Lieutenant W. M. Webb to be captain; First Lieut. T. H. Zabbi-

com to be capt.; First Lieut. W. Barge to be capt.; Second Lieut. C. E. L. Gardner to be capt.; Sec. Lieut. J. Curtis to be first lieut.; Second Lieut. R. H. Marten to be first lieut.; Second Lieut. S. B. Smith to be first lieut.; Second Lieut. E. G. Clarke to be first lieut.

2nd Gloucestershire Engineers—The Rev. A. G. Lane to be acting chap.

1st Gloucestershire Rifles—O. Howard Thomas, gent., to be ens.; Lyons Roden Sympson Walcott, gent., to be ens.

2nd Hertfordshire Rifles—Geo. Edward Lake, gent., to be lieut.

9th Kent Artillery—First Lieut. C. H. Cooke resigns commission; Second Lieut. C. W. Keene to be first lieut., vice Cooke.

10th Kent Artillery—Lieut. Col. F. H. Westmacott resigns commission.

29th Kent Rifles—William F. Bond Jemmett, gent., to be ens., vice Greenhill, resigned.

1st Lanarkshire Rifles—John Danksen, gent., to be ens.

31st Lanarkshire Rifles—Lieut. J. Wilson, resigns commission.

1st Lancashire Rifles—Thomas Kirkpatrick Holden, gent., to be ens.

8th Lancashire Rifles—Henry Gipps, Esq., late Capt. and Adjt. Isle of Man Volunteers, to be adjt., vice Christie, resigned; Adjutant Gipps to serve with the rank of captain under the provisions of Article 126, Regulations for the Volunteer Force, dated Sept. 18, 1863.

40th Lancashire Rifles—Captain W. Pollitt, Lieut. T. Oxley, and Ensign J. I. Hawkin resigns commissions.

47th Lancashire Rifles—Lieut. O. Deacon resigns commission.

56th Lancashire—Lieutenant J. Greenhalgh to be capt.

1st London Engineers—Hon. Assist. Qrmr. S. Barnett resigns commission.

2nd Middlesex Artillery—Alfred H. Harrison, gent., to be second lieut.; George Clark, gent., to be sec. lieut.

12th Middlesex Rifles—Thomas

Gray Pratt, gent., to be acting assist. surg.

13th Middlesex Rifles—Fredk. Orton, gent., to be acting assist. surg.

23rd Middlesex Rifles—Capt. R. O. Turner resigns commission.

28th Middlesex Rifles—Capt. O. T. Hearne resigns commission.

40th Middlesex Rifles—Ensigns J. C. Barnard, and A. Horne to be

lieuts. Hon. Chaplain Rev. H. G. Blunt resigns commission.

7th Monmouthshire Rifles—Lient. S. Goss resigns commission.

8th Monmouthshire Rifle—Lient. H. Nicholl and Ensign S. W. Gardner resign commissions.

2nd Surrey Rifles—The promotion of Ensign H. Parker to be lieut., to bear date of June 19, 1872, instead of Sept. 25, 1872.

CELLULAR PROTECTION FOR WAR-SHIPS.

At no period during the progress of the ironclad reconstruction have there been lacking opponents of the use of armour for protecting war-ships. The grounds of opposition have been various, but the conclusion has been the same, that the construction of heavily plated vessels was a mistake; their impregnability a delusion; and their employment likely to cease as soon as a naval war occurred and proved their inefficiency. It has been more than once asserted that the limit had been reached in the thickness of armour that a ship of manageable dimensions could carry; while the weight and power of the guns were supposed to be capable of still further development. On paper, the battle of the guns and armour has more than once terminated—always disastrously for the armour; but, in practice, as new ships have been laid down, means have been devised for making their protection quite as efficient relatively to the heaviest guns in existence, as was the case with their predecessors; and if our gun-makers are prepared to stake their reputation on the production of guns capable of piercing 20-inch armour, our naval architects are no less confident that they can produce ships which shall be protected over their vital portions by armour capable of resisting the impact of these enormous projectiles weighing half a ton, and propelled by a charge of one-tenth of a ton of powder. The summary method of dismissing the subject of armour or no armour, by assuming the proved superiority of the gun, or its immediate probable superiority, cannot, therefore, be entertained; it simply ignores the facts of the last ten years, and limits progress to the department of offence.

The gun is not to be, however, the only weapon of offence in future naval warfare; ramming and torpedo attacks are likely to come into prominence, and to some extent, at least, supersede the effect of ordnance; and in the opinion of many persons this fact alone is conclusive against the continued use of armour. It is not our intention to enter into this argument here; we would simply remark that these methods of attack are nearly, if not quite, as old (in their recent applications) as the use of armour; and consequently, what has been done during the last ten or twelve years to develop the construction of ironclad ships has been done in full view of the facts that these ships would have to encounter rams and torpedoes. All, or nearly all the ironclads of our own and foreign navies are capable of acting as rams, and were built with a view to such employment. So long ago as the Civil war in America, torpedoes were made use of, not merely as stationary defences, but as the means of offence against the enemy's ships. It is true that since then torpedo-attack has been considerably

developed, although we shall have to wait to the day of battle to ascertain its real comparative standing. Our point simply is that it is erroneous to suppose that the question of the use or abandonment of armour has quite recently entered on a new phase, or that any conclusive argument can be based upon recent experience and the latest invention. Its discussion is quite as open now as it was in 1863, and we are not aware that any eminent advocate of either view has renounced his earlier opinion and adopted its opposite. Still the fact is undeniable that an uneasy feeling prevails among the general public, who have a great interest in, but not a thorough understanding of, naval affairs; and in some quarters it seems to be tacitly assumed that the greater number of our existing armoured ships are obsolete, that the most recent types must soon become obsolete; and that these grand and costly vessels will have to give place to the products of another naval reconstruction, quite as sweeping in its character and as costly in its execution as that which began in 1859.

It is undeniable that a very large number of our earlier ironclads are almost, if not quite as obsolete when compared with the latest types, as the line-of-battle ships which they replaced were in comparison with the 'Warrior' and 'La Gloire.' On the other hand, there is no reason to assume that these thinly-armoured ships have lost any of their power relatively to unarmoured vessels, because they have been far surpassed by later ironclads; yet this is virtually done when they are termed obsolete without any qualifying condition. France and all other maritime nations of importance stand much in the same position as ourselves in this matter; but they do not strike off the lists of their effective fleets the ironclads which could not dare to confront all and every possible enemies, and there is no reason why we should do so. Should war occur, work would not be wanting for our 'Warriors' and 'Minotaurs;' nor would they prove incapable of use, although their sides are readily penetrated by the heavy guns now carried on shipboard. Their high speeds, and good sea-going qualities, are not affected by the advances made in armour and guns since the date of their construction; and if they would need to "show their heels" to many armoured vessels, they would prove uncomfortable neighbours for any unarmoured ships. To this point we shall advert hereafter; at present it is mentioned simply to illustrate our assertion that even our earliest ironclads are obsolete only in a relative sense. Such relative obsolescence must be admitted, and is a necessary consequence of the wonderfully rapid strides made in warlike appliances during the last twelve years, thanks mainly to the strenuous and almost fierce competition between armour and guns. The 'Warrior' and 'La Gloire,' as originally armed, could have approached within something like 200 yards before the heaviest gun then carried on shipboard could have pierced their armoured sides. Before long these 68-pounders

gave place to $6\frac{1}{2}$ -ton guns capable of piercing the 'Warrior's' side at more than 1,200 yards' distance; but on the other hand, the 'Bellerophon's' side-armour was made capable of resisting $12\frac{1}{2}$ -ton guns at ranges of about 800 yards; the 'Hercules'' side-armour, in the region of the water-line, would have resisted the 18-ton gun at something like 600 yards, and the 25-ton gun at 400 yards (with the charges of powder then used); and our latest ships, the 'Devastation' and 'Thunderer,' armed with 35-ton guns, could approach one another within about 1,000 or 1,200 yards before their thickest armour (14-inch) would be pierced, if struck direct by a projectile weighing 700 lbs., and propelled by 115 lbs. of pebble-powder. If so-called "armour-piercing" guns be alone considered, it will be seen that the power of the $6\frac{1}{2}$ -ton gun relatively to the $4\frac{1}{2}$ -inch armour in common use when that gun was first brought into general employment, is practically the same as that of the latest and heaviest guns (the 35-ton) relatively to the thickest (14-inch) armour yet actually carried. Hence it will appear that no exaggeration was indulged in above, when we stated that to assume that the progress in guns was such as to quite outpace that in armour, was to beg the question and ignore facts. Whatever may be the reason, we have not yet exceeded the 35-ton gun after ten years' work and the expenditure of no small amount of money and ingenuity; nor does it seem that other nations have made greater, if equal, progress in the actual armaments of ships, although individual monster guns have been produced, and their wonderful powers paraded from time to time. The possibility of bringing heavier guns into use we do not question, but the other possibility of using thicker armour is just as unquestionable.

To the mere onlooker, it would appear almost impossible that such great advances in guns and armour should have been made without very largely increasing the size and cost of our recent as compared with our earlier ironclads; and a lurking doubt is sometimes expressed as to whether the limit of size, manageability, and cost may not have been reached, although that of weight in guns or thickness in armour has not yet been attained. For the comfort of such persons it may be proper to state that here, as in many other particulars, the popular view is not the correct one. The largest and heaviest ironclads we possess are the 'Minotaur' class, built so long ago as 1861; they are 400 feet long, weigh about 10,500 tons, cost about £480,000 each, and have armour only $5\frac{1}{2}$ inches thick. Our most recent types, the 'Devastation' class, with 12-inch and 14-inch armour, will cost, it is thought, about £350,000 (or about £130,000 less than the 'Minotaur'), weigh only about 9,200 tons, and be only about 280 feet long, although nearly as fast under steam as the 'Minotaur.' These results are due to radical changes in type and structure which we cannot now describe.

Opinions are divided amongst the advocates of the continued use of armour as to the best mode of distributing it, and the best types of ships to carry it; but nearly all agree in this, that the protecting material shall be continued to be placed vertically over some portions of the sides of the ships, and be to some extent incorporated into their structures. To these gentlemen are opposed those who hold that the use of vertical side-armour is an error; and that other means of securing the safety and efficiency of war-ships should be adopted, although they are not unanimous in the recommendation of any particular plan. These divergencies of opinion were brought into strong relief by the work of the recent Admiralty Committee on Designs, and in the various Reports (since issued as Parliamentary Papers) are to be found probably the most complete statements of the views of those who object to side-armour. To two of these we propose to draw attention, as they have some points in common. The first is that of the eminent gun-maker and artilleryman, Sir William Armstrong; the second is due to Admirals Elliot and Ryder, who were Members of the Committee, but submitted a separate Report. In both, cellular subdivision is a prominent feature: and as this has been a favourite device of all who have ventured to differ from the general practice, the examination of its merits will probably have some interest.

In his letter to Lord Dufferin, annexed to the Report of the Committee, Sir William Armstrong dwells upon "the present effects and probable future of guns, projectiles, and torpedoes," and is led "to the conclusion that no practicable thickness of armour can be expected to secure invulnerability for any considerable length of time." He then proceeds as follows:—

"At present it is only the most recent of our armour-clads that have any pretence to be considered invulnerable. All the earlier vessels, when built, had just as much claim to be so regarded as the strongest ships of the present day; yet they are now completely left behind, and are, in my opinion, much inferior to well-constructed unarmoured ships. I venture to ask, What reason have we to suppose that the powers of attack will not continue quickly to overtake the increased powers of resistance, which we are applying at great cost, and at great sacrifice of general efficiency? Every addition to the weight carried for defence must be attended with a diminution of armament and of speed, unless the size of the ship be increased in a very rapid proportion. A continual addition, therefore, to the thickness of the armour involves either a continual reduction of offensive power, or such an increase in the size of the vessel, and its consequent cost, as must limit the production of sea-going ships of war to a number inadequate for constituting an efficient navy."

We do not wish to dissect this argument thoroughly, but we cannot forbear from remarking that Sir William Armstrong

entirely misses two most important points. First, he takes no account of the fact that the defensive power of a ship may be very largely increased by an altered *distribution* of the armour, its weight remaining unchanged ; and, secondly, he takes no heed to the *changes of type* in the ships themselves. Any person unfamiliar with the facts might suppose that the 'Hercules' was no more powerful than the 'Warrior,' because she is not so large and heavy ; or that the 'Devastation' would cost more and be larger than the 'Minotaur ;' whereas the facts are quite otherwise. But let us continue the quotation :—

“ In my opinion, armour should be wholly abandoned for the defence of the guns ; and, except to a very limited extent, I doubt the expediency of using it even for the security of the ship. Where armour can be applied for *deflecting* projectiles, as at the bow of a ship, it would afford great protection without requiring to be very heavy ; but in other cases, where it must be of great thickness to be effective, I think its advantage is not adequate to the sacrifices it involves. Water-tight compartments would alone be available against torpedoes, and it appears to me they would also afford the best security against the effect of penetration by projectiles at or below the water-line. If we were relieved from the dead weight of heavy armour, the gain of flotation would afford the means of enormously increasing the armament and the speed of the vessel. Or what would be better still, we should be enabled to reduce the size and increase the number of our ships, so that the loss of a single vessel should no longer be a national calamity, as at present. We could then have comparatively small sea-going ships, with abundance of speed and heavily armed ; and happen what may, such vessels could never be out of date, for they would always be well adapted for protection of commerce, for colonial service, and for the attack of flotillas carrying an invading force. It would be necessary to adhere to iron as the material of construction, and the plates composing the skin would require to be considerably thicker than those used in ordinary ship-building, to prevent penetration by grape-shot or steel projectiles from Gatling guns. The armament of these vessels might include one or two guns capable of piercing the heaviest armour, and the rest should be light, but wide in the bore, so as to throw large shells with moderate velocities. A mixture of guns on the Gatling principle would also be of great service against boat attacks, and for pouring streams of bullets through the port-holes of an opposing ship. A vessel so constructed and armed would be a formidable antagonist for an ironclad, even in a duel of artillery, while for ramming, or for using torpedoes, her superior speed and handiness would give her great advantage over a heavily encumbered adversary. But we could afford to use these vessels in far greater numbers than ironclads ; and whatever the result of a single combat might be, a combined attack of several such vessels upon

one iron-plated ship would, in my judgment, be wholly irresistible." Summing up the whole matter, he is of opinion "that swift vessels of iron divided into numerous compartments, with boilers and machinery below the water-level, and only very partially armoured, constitute the class of sea-going ships which it would be most prudent to build under the present prospect of the progress of artillery, and the science of attack."

We have preferred to quote this interesting statement *in extenso*, as it puts most clearly and with great force a view that has found other eminent supporters; and our brief examination of its character will be made, not with a view to the use or disuse of armour, which we desire to avoid discussing in this article, but with the simple object of ascertaining how far these cellular ships are practicable and preferable to armoured vessels.

At the outset, we must state frankly that Sir William Armstrong writes far more as an artillerist than as a naval architect, which latter profession he would scarcely claim as a part of his own. Amateur ship-designers are very apt to assume that sea-going unarmoured vessels of comparatively small dimensions, and of moderate cost, can be built to carry very heavy guns and steam at speeds which shall be high as compared with the speeds of armoured ships. As a matter of fact, it is well known to professional men that the problem is not so simple as it seems; and that to fulfil its conditions ships must be of a considerable size. Look, for example, at the swift unarmoured cruisers of the Royal Navy, steaming at speeds of 15 or 16 knots per hour, as against speeds of 14 to 14½ knots for the ironclads; and it will be found that they are by no means small vessels. The 'Inconstant' is our fastest cruiser, steaming about 16½ knots at full speed; she carries a heavy battery of armour-piercing 12½-ton guns, as nearly as possible equal in power to the armament of the ironclad frigate 'Bellerophon'; she has engines of nearly the same power, and probably of nearly the same weight as the 'Bellerophon'; and the weights of equipment for the two vessels are probably not very different. Here, then, we have a means of comparison, far better than any mere general statement of possibilities. Two actual ships, with as nearly as possible equal weights of armament, engines, and general equipment to carry, but one unarmoured and steaming 16½ knots, the other protected over the water-line region and the battery by nearly 1,100 tons of 6-inch armour, and steaming over 14 knots: what are their relative sizes? Taking their total weights, or displacements, they compare as follows: 'Bellerophon,' about 7,500; 'Inconstant,' about 5,800 tons. The 'Inconstant' is therefore considerably lighter; but to obtain her great speed she has been made about thirty feet longer and much narrower than the 'Bellerophon'; and is consequently not so handy under steam as her armoured rival, a fact scarcely in keeping with Sir William Armstrong's expectation. Nor is she by any

means a small or inexpensive vessel, although she is lighter and less costly than the 'Bellerophon,' because unarmoured; she is actually of greater displacement than the largest of the two-decked screw line-of-battle ships. We would venture to ask whether the 'Inconstant' or the 'Bellerophon,' as they stand, would prove successful in a duel such as Sir William Armstrong imagines? The 'Bellerophon's' vital parts would not be penetrable if hit directly by the heaviest gun of the 'Inconstant' until the latter had approached within about 1000 yards; whereas at any distance within range the lightest gun of the 'Bellerophon's' armament would penetrate the unarmoured side of the 'Inconstant.' It may, of course, be urged that the 'Inconstant' would not represent the ideal of Sir William Armstrong; but supposing her to be altered, so far as is possible in accordance with his suggestions, her condition would scarcely be better. For instance, the use of thicker iron plates to keep out grape, Gatling projectiles, and (as appears from another part of the letter) common shells, would necessarily involve more weight of hull. So would the partial bow-armour which he favours; and so would further cellular subdivision of the interior. All of these changes would necessitate either a reduction of armament, coal, or some other item of the equipment, or else an increase in size! But what is a still more serious objection, not merely to this supposed conversion of the 'Inconstant,' but to the plan *in toto*, is that minute cellular subdivision of the entire hold-space is a practical impossibility. Engines and boilers to develop the great power required to drive the ship at her high speed, cannot be crammed into small spaces; and the existence of a large compartment might be fatal to the ship. In addition, there is no folly in supposing that the explosion of shells and other internal damage might spoil in an instant the most careful subdivision, and create a large compartment; and, on the whole, it seems not at all unreasonable to conclude that the unarmoured ship would find her greatest safety in flight. She would almost certainly be compelled to keep at long ranges, even if she fought an ironclad, and carried one or two guns which could pierce the armour at these ranges; as a consequence, her chances of getting the fair hits required to injure her enemy severely would be rendered very small; her opportunities for ramming and making use of torpedoes would be practically non-existent, and all the time she was within range a chance shot striking ever so obliquely might prove fatal. So long as she remained end-on the risk would be less; but in a duel of the kind imagined, it is hard to see how, even with her excess of speed, the unarmoured ship could long maintain that position. On the whole, there seems no sufficient reason to accept Sir William Armstrong's verdict as correct, and to believe that ever so well-subdivided, well-built, and well-armed a cruiser on his plan could venture to engage a well-armed ironclad ship possessing her full manœuvring power and speed.

To sum up, we object to Sir William Armstrong's plan, because it involves an assumption, not supported by experience, that on relatively small dimensions such a cruiser as he advocates could be built and be made to secure the high speed desired; because minute cellular subdivision cannot, so far as our present knowledge enables us to judge, be carried into effect over the whole of the hold-space; and because the risks run by such an unarmoured vessel in coming within moderate range of an ironclad would be very considerable. It is not necessary, after this statement, to discuss the supposed case of an attack by several of these cellular-ships upon an ironclad; but it must not be forgotten that all our recent iron-built ironclads are themselves cellularly subdivided to the utmost extent compatible with the necessities for stowage and accommodation. No one will question the desirability of having in our Navy the very best possible types of swift unarmoured cruisers; but their work certainly does not appear to be that of superseding or encountering armoured ships. It is rather to be found in the protection of our commerce and distant possessions against the depredations of an enemy's cruisers of a similar character, and the infliction of damage upon his commercial marine. Both departments will doubtless afford ample occupation to all our cruisers should war unfortunately break out with a maritime power.

The system of protection put forward by the dissenting members of the late Committee on Designs, Admirals Elliot and Ryder, has some features in common with that favoured by Sir William Armstrong, but is not identical therewith. These officers would make use of the principle of cellular subdivision, but in association with other protective arrangements which Sir William Armstrong does not appear to contemplate. Their Report is a very interesting document, displaying an amount of painstaking and intelligent labour which we should have expected to have secured a far larger share of public attention than it yet appears to have received. As might have been supposed from the great experience and high standing of its authors, the Report abounds with references to the past and probable future of naval warfare; and its suggestions are made in view of the probable requirements of the Royal Navy, "not only in the present and the immediate future, but also in the more remote future." Modifications of most of the existing types of war-ships are proposed, and in many cases the principal dimensions, speeds, armaments, and other important features of the modified designs are sketched. With these details, however, we have for the present no concern; our endeavour will be to describe briefly the main features of the system of protection that is put forward as a far more efficient one than that now in use, and afterwards to examine into its probable degree of efficiency.

The new system is known as the "Raft Body Principle." A

strong iron deck, from three to five inches thick, is to be built about five or six feet below the load water-line of a ship, being consequently about as deep below water as the lower edge of the armour-plating in existing ironclads. The machinery, magazines, and other vital portions are to be placed below this deck, and it is considered that the thickness of iron named will be sufficient to prevent penetration by even the heaviest projectiles likely to be used. Openings will, of course, be needed in this deck for the funnels, hatchways, &c. ; but these in action are to be closed by strong armour gratings, supposed to be as capable as the deck itself to prevent the passage of shot and shell. Above this armour deck, and reaching to a height above water about equal to the depth of the deck below water, is to be constructed the "raft-body" proper ; which is to be formed by numerous cells or subdivisions (each about twelve cubic feet in content), with thin iron partitions. The outer boundaries of the raft-body are to have "double sides" filled with cork ; and the outer skins of these double sides are to be formed of iron plates sufficiently thick to break up common shell. Around the openings in the armour-deck similar protective enclosures or "cofferdams," formed of two iron skins with cork between, are to be built ; and the hatchways for handing up powder and projectiles to the guns are also to be similarly protected. It is thought that "the raft-body may be extensively riddled without endangering the ship or impairing her efficiency." It is also supposed that the effect of such shells as would pierce the sides of the raft-body and explode within it would be slight, because "the top of each cell would be open to the air-space above, and in the case of the hatchways to the air itself ; the gas pressure is thus released in the direction the least objectionable, namely, upwards towards the outer air, and the wave pressure of the gas will, it is expected, find immediate vent in the direction of least resistance, although the fragments of the projectile will, of course, be mischievous laterally." The armour deck, with the coffer-dams around its openings and the battle-gratings across them, is expected to prevent water from passing into the hold, even when the raft body is riddled in action ; and, on the other hand, that body is assumed to be so constructed as to prevent the entry of a dangerous quantity of water likely to affect the buoyancy or safety of the ship. The large space lost for accommodation in consequence of the construction of the cells in the raft-body, or the occupation of the same space by cork, or some similar material, is to be made up by increased height of freeboard ; involving, of course, greater weights. If cells are built and left empty, as the Admirals appear to consider best in default of experiments, the spaces may, of course, be utilised somewhat for storage ; but not with very great convenience unless such uses were kept in view during the construction of a vessel. To protect the ship against raking fire when fighting "bow-on," an athwartship bulkhead is proposed, covered with

20-inch armour. The guns are to be carried in fixed batteries on revolving turn-tables ; fired *en barbette*, but run down under cover for loading on a plan devised by Captain Scott. Other unprotected guns are intended to be carried ; but into a description or discussion of the system of armament we shall not enter, seeing that it is quite as applicable to a vessel with vertical side-armour as it is to raft-bodied ships. These are, we think, the distinctive features of the plan suggested by Admirals Elliot and Ryder ; and it is certainly a noteworthy one.

Other persons have, at different times, suggested that an armour-deck might be used in lieu of vertical side-armour over portions of the length of a ship, and the gallant admirals were in possession of the plans of Mr. E. J. Reed (late Chief Constructor of the Navy), and of Mr. Michael Scott, when they made their Report. But both Mr. Reed and Mr. Scott applied their alternatives for side-armour only near the extremities of ships, and retained the central portion of the armour-belt, modifying, in fact, in one very important particular the disposition of armour that had been made in some of the earliest ironclads, such as the 'Warrior' and 'Defence,' of which the ends were left unarmoured, although they had no thick underwater armour-deck. The majority of the Committee on Designs seem to have favoured this combination of side and deck armour, although they did not recommend the plan of Admirals Elliot and Ryder, for they say :—

“Although as before pointed out there are serious difficulties in the way of increasing to any very material extent the thickness of armour applied in the usual manner to sea-going ships, viz., in the form of a complete belt around the ship from stem to stern at the water-line, besides local protection for guns, men, &c., it is not by any means certain that some method may not be devised of securing the requisite reserve of buoyancy by other means than armour-plating. Were this accomplished the area of the armour might be diminished, and its thickness increased in a corresponding degree. The ship would then comprise a very strongly plated central citadel, surrounded and supported by an unarmoured raft constructed on a cellular system, or containing some buoyant substance such as cork, which without offering any material resistance to the passage of projectiles, would not be deprived of its buoyancy by penetration.”

This language is not very precise or definite, but it appears to go in the direction we have pointed out, and favour a combination of vertical armour amidships with special cellular arrangements towards the extremities.

Admirals Elliot and Ryder have adopted for the whole length of a ship, a plan of protection which most other persons who have considered the subject have preferred to confine to the narrow extremities. As a consequence, their raft-body principle brings down the true openings into the interior of the hold, viz.,

the apertures in the armour-deck, to five or six feet below water, instead of having them about an equal height above water. This will by most readers be considered no small disadvantage; and it departs from what has hitherto been regarded as an axiom in the construction of protected ships, viz., to bring the openings into the interior as high above water as possible. Of course, by means of the cork filled coffer-dams around these openings some amount of protection is given; how much we do not profess to be able to say. But it is scarcely possible to imagine that a vessel would be long in action without having these parts of the raft-body riddled, and water finding more or less easy entry not merely into the damaged cells, but also through the openings in the armour-deck into the hold itself. Against this danger, armour gratings across the hatchways and openings would be useless; the deck itself and even the gratings might continue to deflect shot satisfactorily, but yet the ship might be sunk. Openings must exist in the under-water deck, and so long as they are thus protected, they appear to be serious sources of danger. It may of course be urged that strong armour casings might be fitted round these openings, their tops being several feet above water, similar to the casings round the funnels and ventilators of American monitors; but this is a return towards the vertical armour which the raft-principle is intended to replace, and therefore would not be likely to be countenanced by the gallant officers. Moreover, such a partial use of vertical armour would be by no means an economical or desirable one in other respects.

It must be admitted that in all these arguments there occurs one element of doubt, arising from our lack of knowledge respecting the probable effect of shot and shell upon a cellular construction, either empty or filled with water, cork, or some other substance. Experiments in this direction are recommended by the main body of the Committee as well as by the dissenting members; and it is to be hoped that they will be made. Until experimental data are in our hands mere opinions cannot go for much; but whatever may be their result, we cannot be wrong in assuming that they will largely influence war ship construction. That they will lead to the adoption of the raft-body principle scarcely seems probable. After a careful examination of the Admirals' Report, and of the letters on the subject since published by Admiral Elliot, we are of opinion that the gallant officers have not established a claim for the superiority, or even equality to their plan, that of the "central citadel" or "combined deck and side-armour" plan as it may be termed, favoured by the majority of the Committee. They tacitly assume that no vertical side-armour, however applied, can give as good protection, weight for weight, as their raft principle; but we are bound to say that they do not prove their case, nor furnish any definite comparison which could be analysed. It is undeniable too that their own plan, even if desirable above all others for merely protective

purposes, involves difficulties of no mean order, but these are scarcely noticed in the Report. For example, every one familiar with the arrangements of a modern man-of-war will know what a large space is required for the machinery, even when the limit of height is fixed by the load water-line; how much greater length of the hold will be required, and how much will the difficulties of stowing engines and boilers be increased when they have to be crammed in below a deck five or six feet under water? So far are Admirals Elliot and Ryder from dwelling on this practical difficulty, that in another part of their Report we find them expressing a preference for "engines designed to occupy as narrow a space as possible, *but with greater length*," in order to lessen the probable effects of ramming. This is one of the most striking examples with which a reader of the Report meets, of the tendency to disregard as a mere detail some condition which may in practice settle the practicability or otherwise of a design. The Admirals are very careful to disclaim any assumption of the character of amateur naval architects, and their "modified" designs can only be regarded as outlines; the developments of these into designs for building actual ships would probably involve still further modifications, but on this point experience alone can decide.

While unable to recognize the overshadowing merits of the raft-body principle, we desire to treat both it and its authors with the greatest respect; and we gladly draw attention to their avoidance of the popular error that minute cellular sub-division can be carried out fully in the hold space, as well as to the thoughtful suggestions made as to the possibility of gaining increased protection against ramming by some slight changes from existing arrangements. Moreover it is a noteworthy fact that they do not assume that shells are not to explode inside, and to some extent damage the raft-body; on the contrary, as was stated above, careful provision is made to minimise so far as possible the effects of such explosion. We cannot forbear, in passing, from noting the common error that so-called "common" shells are all that need to be kept out of an unarmoured ship; just as if, when the thickness of her plates had been settled by the consideration that common shells should be "broken up," it would not be possible easily to produce shells with walls just thick enough to pierce these plates, and with a charge not much less damaging than that of the common shell. In all these discussions, there is a great danger of so narrowing the view to existing means either of offence or defence as to practically fail to see the very next step that may be taken.

There are many other matters incidentally touched upon in the Report of Admirals Elliot and Ryder to which reference might be made did space permit; but for the present they must pass unnoticed. In conclusion, it need only be said that although side-armour on ships of war may eventually be abandoned, it may

fairly be questioned whether its use, in some fashion or another, and to some extent will not continue so long as no more satisfactory substitutes can be found than the plans we have briefly sketched.

THE PENSION DIFFICULTY.

The increased number of desertions from the Army, combined with the difficulty of recruiting, has stimulated public attention in a more than ordinary manner to the faults of our military system. Frightened by the bugbear, retrenchment, the Government has endeavoured year after year to cut down the Estimates, or rather to give them a cut-down appearance, in order to stop the criticisms of the Economists, and have failed most signally in the attempt. Retrenchment is, doubtless, an excellent rallying cry for any party, be it in or out of office; still we had hoped there were certain institutions which would have been deemed sacred from attack by even the most radically inclined rulers. But we have lived to learn no more to put trust in Governments—and especially in Liberal Governments—than in princes. It is very little the party now in office respect beyond the means of keeping themselves in power; but the most surprising thing of all is, that despite their penurious ways, the expenditure of the nation somehow keeps steadily on the increase. Before they got into power, in what roseate hues did they picture the future! Everybody was to have everything he or she required on their own terms, the Army and Navy were to be remodelled on a new and perfect plan, and in such a way, that although the efficiency of each would be doubled, their cost would be diminished by one half. The Pension List was also to be lowered, and the Civil Service expenses correspondingly reduced likewise; but while the ear was tickled by the sound of the word retrenchment, our pockets have suffered from a directly opposite cause, viz., an increased expenditure.

We do not intend to touch upon all their promises, but will confine our remarks to one, the Pension List, Civil and Military. The first will only require a very few words to deal with it, for instead of having undergone a pruning process, it was so well cared for in 1870-71, that it expanded just one hundred and sixty thousand pounds that year: and although the Government has managed to prevent publicity being given to the state of the Pension List for 1871-72, we have every reason to believe it has been as well looked after in that as in the previous year. But when we turn to the Military Pension List, we find no augmentation there, but, instead, a diminution. Like the cheap Tweed suits for tourists, *it is shrunk*, and that considerably; and what is worse, unlike the wearing apparel, it is likely to keep *shrinking*,

if the present objectionable policy is not abandoned. In proof of our allegation, we have only to look at the Army Estimates for the past three years. For instance, the full and half pay of retired officers was in 1870-71, £598,000; the next year it had shrivelled up to £543,646; and in the present year it is only estimated at £526,509. The pensions paid to officers' widows have likewise contracted, as also those paid to wounded officers. Then again, the out-pensioners of Chelsea Hospital require £5,606 less to pay them in 1872-73 than in the year previous, while it seems that some of these men only draw three half-pence per diem, or £2 5s. 7½d. per annum; a munificent allowance, certainly, from a great nation to one who must have served it faithfully for at least five years of his existence.

It is now pretty well known that neither Mr. Gladstone, Mr. Lowe, nor, for that matter, Mr. Cardwell, have any military predilections. They each and all look upon soldiers in about the same light as some people do the 'demi-monde;' beings that society tolerate, but one of a class that they themselves would like to see become extinct. Therefore they resist all attempts to improve the condition of the men while serving, and endeavour at the same time, by their parsimony, to make the after-existence of the soldier as miserable as possible. That the present Government have introduced reforms which have benefitted the privates pecuniarily, we will readily admit; but that such reforms have been due to public pressure upon them from outside, is a fact so well known as to need no comment. Hence as a protest to such benefits, we have a short service project thrust upon us, which is to relieve the country from the Chelsea out-pension list, at the expense of filling the ranks of our Army with incapable soldiers.

Now we consider that there is no money paid away by Government that has been so well earned, or which pays the State better as an investment, than the million and odd pounds yearly paid to soldier pensioners. But for this donation, Government would never be able to procure drill-instructors for the Yeomanry, Militia, and Volunteers, at salaries of about £36 per annum; neither would warders be found to take charge of our prisoners in gaols, for a similar reason. Besides, every one of the 65,000 pensioners are advertisements showing the advantages of a military career, for here are men of good health and average abilities, drawing allowances, which civilians in the same position in society cannot do. There are more than 65,000 pensioners, but we leave the other 500 alone, as they may only draw the three-halfpence daily, and so feel little gratitude for the amount bestowed. We certainly think our Pension List needs further revision, for it is equally scandalous that men should be turned adrift on one penny and a-half of daily subsistence, as it is for others, after nearly twenty years' service, to be discharged with nothing but a deferred pension of *fourpence a per diem* on their attaining the age of fifty years.

Perhaps no better proof of the value soldiers set upon their pensions could be adduced than what can be drawn from our last Military Prison Report. From it we find that as men go on towards pension, their chances of misconducting themselves lessen. The criminals of the service are mostly young soldiers. Of 1,587 deserters in 1871—1,394 were under seven years' service, 175 had served between seven and fourteen years, and only 18 had served more than two-thirds of their time. This plainly shows that a pension proves an inducement to even the worst characters, for although in that year the desertions equalled 24 men per 1000 serving, yet of the 183,471 rank and file, only 18 men over fourteen years' service had been guilty of desertion. And the same rule applies throughout, for we find that in the year named above, of 4,293 prisoners who were convicted by courts-martial, 3,188 were under seven years' service, 886 were men who had served between seven and fourteen years, and only 219 men committed themselves who had upwards of fourteen years' service; all facts plainly pointing to the correcting influence that pensions have upon the conduct of soldiers.

The question has lately arisen whether it would not be preferable to pay the soldier more; the excess to go to his credit in the savings bank until he was discharged; this being in lieu of pension, as a sum of sixpence per diem would at the end of twenty-one years come to an amount equivalent to a pension for the average number of years soldiers live after being discharged. This suggestion is so practical that we will give it our best attention. We will, however, go further than the views given by our contemporary, believing that the idea is capable of a still wider extension.

What we would venture to suggest is, that a certain amount should be placed in the regimental savings' bank to the credit of each soldier monthly. This, in our opinion, should be in proportion to the daily pay received, as it would be obviously unfair for a private on discharge to be entitled to an equal sum to his sergeant-major. The scale might be as follows:—a private, 6d.; a corporal, 8d.; a sergeant, 10d.; and sergeants-major and staff-sergeants, 1s. per diem.

The writer in the *Pall Mall Gazette* proposes that the sixpence should extend to all ranks, and the money at the end of six years—about £60—be given to the soldier, who was then to join the Reserve with an allowance of sixpence per diem until he had completed his twelve years. The idea, as we have stated, is an excellent one, and had we no foreign possessions, would work well. But with India to be protected, six years' service for men in the Army is sheer nonsense; for it would take eighteen months to form a soldier, about six months more to get him to India, two years more to acclimatise him, and just as he was getting likely to be serviceable to the State, steps would have to be taken to get

rid of him. Hence, for this reason as well as that it would be scarcely fair for all ranks to receive a similar sum on discharge, we, while hailing the idea as good, believe it to be capable of improvement.

The basis, in our opinion, must be longer engagements. Soldiers should be enlisted for twenty-one years, in periods of twelve years and nine years, the men having the option to leave at the expiration of their first term of service should they think fit. But as the monthly bonus paid into each man's savings' bank account is a reward for *long service*, it is only just that those who serve longest should receive the most benefit. Therefore, although each man would at the end of his twelve years have a certain amount standing against his name in the savings' bank, yet it should be understood that the mere act of withdrawing from the Army would cause him to forfeit *one-half* of this money. Now as at the expiration of twelve years a private would still retire with about £60, a corporal £80, a sergeant £100, and a serjeant-major or staff-sergeant £120, the bargain would yet be a good one. Each, of course, would know that by claiming his discharge he was forfeiting a similar amount to what he would have to receive, and we believe that this knowledge would be a great inducement for men to remain, as, having served four-sevenths of their time, they would hesitate to relinquish a round sum of money, when the prospect of a much larger amount by waiting nine years more was assured to them.

The higher sums granted to non-commissioned officers would be a further incentive to good conduct, as by it they could only expect promotion; while, as on the contrary, every day away from duty, either through absence without leave, or being in prison or barrack cells, would carry with it the punishment of no banking credit for those days, and would all help to keep men steady and thoughtful of what "getting into trouble" brought with it.

By this method, as we have pointed out, a private after serving twelve years could retire with about £60, a corporal with £80, a sergeant with £100, and a sergeant-major with £120. At the expiration of twenty-one years the retiring allowances to each rank would be £210, £280, £350, and £420 respectively. But this would not be all the advantage, for many when they began to realize the fact of having money in the bank, would feel desirous of adding thereto, and as all could with perfect ease to themselves put apart half as much again, those who did so would retire at the conclusion of the longer period with the proportionately larger sums of £315, £420, £535, and £630 a-piece.

With respect to men invalided as being unfit for service, it would perhaps be unjust to treat them by the same rule which applied to men claiming their discharge, while on the other hand it would scarcely answer to give to invalids their full clearance, as

this would be like placing a premium on malingering. Difficult as this would be to deal with, still we think it could be managed. Invalids could be divided into two classes, viz., those who had either by excessive drinking or having acquired disease, caused their own unfitness, and those who were incapable of longer serving through no fault of their own. To mark the distinction the first named might on their discharge be only allowed *one-third* of the amount standing to their credit in the savings' bank, while the others might get double this, or two-thirds. It will perhaps seem hard that men invalided from the Service through no fault of their own should be deprived of a penny of the money they should be entitled to, yet we believe such a rule to be necessary for more reasons than one.

In the event of a soldier's death, his next of kin might inherit what was due to the deceased in the bank, according to the degree of relationship. A wife, for instance, could be allowed to draw the full amount, while more distant relations a half or third in the ratio to their degree of kinship. This rule however would only apply to the bonus money, not to any savings the soldier may have acquired himself out of his daily pay, which would be dealt with in the usual manner.

Of course while a soldier may be a private for the whole of his service, it is not possible for him to hold any other rank for a like period; but we have preferred showing the different accumulations in that manner, because the contrast between the grades will be more easily perceivable in larger than in small sums. If we have exceeded the mark in one respect, we have underrated it in another, for sixpence per diem for twelve or twenty-one years accumulating at compound interest, would much exceed £120 or £210.

Having given a rough sketch of our opinion how the proposed plan should be rendered operative, we will now proceed to calculate the expense. Taking a regiment of infantry as our unit, and supposing there are in it eight staff-sergeants, forty-two duty sergeants, forty corporals, and six hundred privates and drummers, the cost extra to the state yearly to subsidise the corps as we propose would be £6,796 8s. 4d. Then as there are in the British Army about one hundred and eighty times as many more men of each rank as we have here stated, the total cost annually of carrying out our scheme would be £1,223,355. From this, however, would have to be deducted one-third—the money forfeited by absentees, men in confinement, invalided and who claimed their discharge, which would reduce it to £815,570.

This is but a small amount comparatively if we but reflect, that as each year passed our present pension list would become less and less, while what is as much, if not more to the purpose, the whole of the Army would benefit by the change.

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The impetus this would give to recruiting, as well as the greatly superior stamp of men, physically as well as morally, it would draw into the Service cannot be over-estimated; while on the other hand, the increased good conduct which we feel confident must follow so sensible a policy, would be another matter of congratulation. There is one thing positive, that before long under this system soldiers would think to be discharged with ignominy from the Service the worst misfortune that could happen to them.

It is certain that a change, and a great one, must take place in our present system of enlistment, if we mean to keep up a standing army proportionate to our requirements. Various causes, such as the emigration of late years from Ireland to America, the unexampled prosperity of the country, and the enhanced remuneration commanded by all kinds of labour has created a competition very formidable to the recruiting sergeant. Formerly 12,000 yearly was the assumed number required to replace all casualties, but now the number needed will be nearly 40,000 per annum. If we at the same time remember that a man of six years' service is worth three recruits, the predicament we are in, and the necessity of making a change that will be really useful becomes apparent.

If this country were similarly situated to Prussia we might enrol, train and discipline our recruits for a couple of years, and then give them the option of either making the regiment their home, or of returning on a long furlough to civil pursuits. The places of the men thus retiring would be filled by fresh recruits easily obtainable on the same terms, so that there would be a constant stream, as it were, of men flowing regularly through the Army, and keeping its numbers up to the proper strength. We should then have at our command a large number of disciplined soldiers, since not only the men in the ranks, but those on furlough also, would be available for any emergency. But India, as we have already remarked, prevents any arrangement that includes short service in its chief details. Regiments must stay there for ten years at least, and if to the regular decrease caused by invaliding and deaths, is added short service, the reliefs can never be kept up. The only other way is to keep certain regiments on foreign service, and as that would get them the character of "penal corps," it would be equally difficult to procure men for them eventually as it is to get them at present.

Our proposal of twelve and nine years' service, twenty-one in all, with a bonus of sixpence, &c., per day, to be received in a lump sum at the expiration of the full term, solves the difficulty.

The expense, as we have already shown, is trifling comparatively, and only at first, as it must eventually more than repay all outlay which has been incurred. This is quite irrespective of the other advantages we have drawn attention to, which of themselves would more than compensate for the extra cost. It should be

remembered that never has the military spirit of the country been more prominent than it now is; the efficiency of our Volunteer Force being not only a guarantee of our national security, but an evidence of the national spirit. In short, we have the material out of which soldiers are made in greater abundance than at any former period of our history, and it will be our own fault if we cannot contrive by a little liberality and judicious administration, to turn this possession to sufficient account.

ANCIENT HEAVY ORDNANCE.

Although the cannon we are now manufacturing for the Naval service and for use in fortifications, are undoubtedly the most powerful and destructive the world has ever seen, they seem to have been exceeded in length and size of bore, and to have been equalled, in some instances, in weight of shot, by the guns of 500 years' ago.

The very large guns of the 14th and 15th centuries were intended for throwing round shot of stone. When iron shot came into use, the much greater weight of the metal operated at once in reducing the size of guns. In the first place, iron shot of the same dimensions as the stone ones would require much larger charges of powder to propel them with the requisite velocity; and the guns, many of which were built of longitudinal pieces of iron strongly hooped together, may well be supposed to have proved unequal to the greater strain imposed upon them; secondly, the same results, as far as weight of metal, and greater as far as penetrative power and range were concerned, could be attained with smaller and handier pieces, at less cost; for these, or other reasons, colossal guns were discontinued. But by what process not only we, but the whole world, descended to the use of the popguns of the early part of the present century, examples of which, in the shape of 18-pound carronades and even smaller pieces were to be seen, till recently, and possibly are to be seen now, on the ramparts of Plymouth and Portsmouth, it would be interesting to discover. It seems now to be certain that if any of the nations at war with us could have made the not very recondite discovery that a very few heavy guns are incomparably more destructive than a great number of small ones, Nelson's fleets might have been sent to the bottom. The partial use made of this discovery by the Americans did indeed inflict some severe defeats upon us, but the fashion was to use small guns, and it was followed as other fashions are without much reasoning. That big guns had ever been employed seems to have been almost

forgotten, and the art of making them died out. At the same time it is only fair to acknowledge that we have no records of any great results from the monster guns, and the difficulty of moving them and working them in days when mechanical science was comparatively undeveloped, must have been very great. Some of these extinct monsters scattered over Europe were regarded by travellers with interest, as curiosities belonging to far off ages, and it was impossible not to feel, in contemplating them, a certain compassion for our untutored ancestors, who had taken so much trouble to manufacture such impossible weapons. But this was before the Crimean war.

After it was first discovered that the range of cannon was increased by adding to their length, people seem to have jumped to the conclusion that it was hardly possible to have them too large, hence the gigantic guns we find in use quite in the early days of artillery, taking that word in the sense in which it is now understood.*

According to Grose,† the date of the first introduction of cannon into Europe is uncertain; but by one account Edward III. used them in his campaign against the Scots in 1327, and it appears from a document preserved in one of the public offices in Paris, that they were in existence in France in 1338.

We find it mentioned by Folard, that the people of Ghent, in 1381, had a gun 50 feet long, throwing a shot of 300 lbs. These large guns went by the names of Syrens and Culverins. The Culverin of St. Dizier, cast in the 14th century, had a calibre of more than 20 inches, and its shot, said to have been of iron, weighed 1,100 lbs.

The cannon cast at Tours, in the reign of Louis XI., had a calibre of 25 inches, and carried stone balls of 500 lbs. weight to a distance of 5,270 metres, or nearly 7,000 yards.

The "Foul wench" of Brunswick, in 1408, carried balls of stone of 300 lbs.

Two of the cannon used by the Turks at the siege of Constantinople, in 1453, had a calibre of 27 inches, carried 1,200 lb. balls of stone, and could not be loaded and fired more than four times in a day. It is mentioned of a similar gun used at the siege of Pisa, that it could only be fired once a day, on account of the difficulty of loading and pointing it.

A hundred-pounder Culverin, at the siege of Marseilles, in 1514, required 60 men to serve it.

Fifty cannon with which the Turks besieged Malta, in 1565, carried 80 lb. balls and at the siege of Belgrade, they had some cannon which were 25 feet long, and carried 110 lb. balls, with

* In 1611, when the authorized version of the Bible was published, it meant something very different:—"And Jonathan gave his artillery unto his lad, and said unto him, go carry them into the city."—I Samuel, c. 20, v. 40.

† Military Antiquities, vol. 2.

50 lbs. of powder. When Prince Eugene took Belgrade from the Turks, in 1717, one of these very cannon was found there.

Besides the Culverin of St. Dizier, there were the Syrens and Culverins of Gomer, Geneva, Nancy, and Ehrenbreitstein, varying from 43 to 56 calibres in length. The Ehrenbreitstein gun, called the "Griffin," was to be seen at Metz not many years ago, and may possibly be there now. It was cast of bronze, in the year 1578, was $14\frac{1}{2}$ feet long, carried a ball of 141 lbs. in weight, with a charge of 60 lbs. of powder, weighed more than 13 tons, and had a carriage which weighed nearly 5 tons.

The Culverin of Nancy, cast in 1598, was 22 feet long, but carried a ball only 48 lbs. in weight.

Frederick the First of Prussia had a piece cast in Berlin, in 1704, the diameter of the bore of which was close upon 9 inches. It carried a 100 lb. iron ball, and is said to have weighed more than 15 tons.

The great gun in the Kremlin is supposed to have weighed 38 tons.

We find a "foul wench" used at the defence of Dresden, in 1760, but whether it was the Brunswick gun or not is not stated. It was so large that it could only be fired three times a day, and its discharge caused so much fear among the inhabitants of the place, that public notice was always given when it was going to be fired.

Not many years ago there were still in the castles of the Dardanelles, old Turkish guns intended for throwing stone shot of 800 lbs. in weight. Two Turkish stone shot of enormous size are preserved in the Tower. Indeed, they are so large, that if they were ever fired, it must have been from a gun far exceeding in size of bore anything we have mentioned.

We hear, however, of a gun found in Russia, in the time of Peter I., in which two men could play at cards, and it was so heavy that all kinds of tackle were broken to pieces in trying to move it.

Something similar, touching its power of holding two people, is to be found in an old Scottish rhyme respecting the well-known piece of ancient ordnance in Edinburgh Castle, called Mons Meg. The origin of this gun appears to be involved in obscurity. Sir Walter Scott, in his notes to Rob Roy, says the gun was fabricated at Mons, in Flanders, in the reign of James IV. or VI. of Scotland. According to Tytler, James IV. used the gun in 1489, at the siege of Dumbarton. A section of it is to be found in the Plates to Grose's "Military Antiquities." It was formed of bars of iron bound together with hoops. It burst in 1682 when firing a salute in honour of James, Duke of York.

Of this celebrated gun, it is said in Tytler's "History of Scotland," that, "popular as Mons Meg has been among Scottish antiquaries of the nineteenth century, her celebrity, when she was carried by James IV., July 10th, 1489, to the siege of Dumbarton,

if one may judge from some of the items in the Treasurers' books, was of no inferior description. Thus under that date we have this entry: 'Item given to the gunners to drink-silver when they cartit Monss by the King's command, 18 shillings.' "Mons, however, from her enormous size and weight, proved exceedingly unmanageable, and after having been brought back from Dumbarton to Edinburgh, she enjoyed an interval of eight years in glorious repose, when James, however, in 1497, sat down before Norham, the great gun was, with infinite labour and expense, conveyed to the siege, and some of the items regarding her transport are amusing."

From these items it seems twice to have been necessary to make her a new cradle at great labour and expense of wood and iron. It also took 23 lbs. of tallow to grease her, and there is one very curious item: "To the minstralis that playit before Mons down the gait."

Mr. Tytler says that the name of the gun was Mons. Drummond, of Hawthornden, was the first to call her Meg.

With reference to the name Meg, it is stated in "Notes and Queries,"* that at Ghent there is still to be seen a wrought-iron gun, a sister of Mons Meg.† This gun is named Dulle Griete, which the writer translates as "Mad Marjory." There also appears, according to a writer in the same Periodical,‡ to have been an allusion to a "roaring Meg" as some kind of cannon in Burton's "Anatomy of Melancholy."

Mons Meg was brought to the Tower in the year 1754, and remained there until returned to Edinburgh by George IV., in 1829.

When the moat surrounding the Tower was drained in 1843, a considerable number of stone shot, varying in diameter from $4\frac{1}{2}$ inches to 10 inches, was found in that part of the ditch which is on the south side of the Tower, running parallel with the Thames. One was also picked up on the shore of the river opposite the Traitor's Gate, and another of large size, 17 inches in diameter, was subsequently dug up not far from the north-eastern turret of the White Tower. All these shot are of Kentish rag-stone or Maidstone grit of the green sand formation, and probably came from the quarries at Maidstone.§ The surfaces of all of them were rough, fragments had been broken off some, and some had been smashed into two or three pieces.

The rude form of these projectiles, their want of sphericity and of regularity of dimensions indicate that they belonged to the early history of Gunnery. Mr. Robert Porrett, late principal ordnance

* Vol. 5, First Series, p. 260.

† This is probably the gun mentioned by Folard.

‡ Vol. 5, First Series, p. 105.

§ In Rymer there is an order from King Henry V. to the clerk of the ordnance and John Bonet, a mason of Maidstone, to cut 7,000 stone shot in the quarries there.

store-keeper at the Tower, and a Fellow of the Society of Antiquaries, took much interest in their discovery, and from their fractured condition, and the fact that they were all found in or near the same spot, he came to the conclusion that they had been fired at the Tower, and probably from one battery placed on the other side of the river. Pursuing his inquiries, he found from extracts from Hall, Kennet, Stow, and Hollinshed, quoted in Bayley's "History of the Tower," that in the 38th year of Henry VI., A.D. 1460, on the news of the landing of the Yorkish army, commanded by the Earls of March, Salisbury, and Warwick, from Calais, which was afterwards joined by Lords Cobham and Bouchier, Lord Scales was despatched by the King with the Earl of Kendal and Lord Lovell, with a considerable body of troops for the protection of London. But the inhabitants being decidedly in favour of the opposite party, refused their assistance, whereupon Lord Scales entered the Tower with his forces, and omitted no opportunity of taking revenge for their disloyalty upon the citizens. Shortly after, however, he was furiously besieged in the Tower by the Earl of Salisbury, Lord Cobham, and Sir John Wenlocke. Sir John carried on the siege on the eastern side. Lord Cobham, with certain aldermen of the City, kept the western side, and on the south, artillery was planted on the opposite of the river.* Hall says that these commanders so vigilantly watched the Tower "that no person could issue out or entre in to ye great displeasure of the Lord Scales and his company, which dayly shote their ordenaunce out, and had likewise great ordenaunce shott at them, to the hurt and no pleasure of both parties."

There seems, therefore, to be a strong probability that the stone shot in question were fired from the battery established in Southwark, opposite the south side of the Tower, and that they rebounded from the wall into the ditch. If this is so, their date would be 1460.

The use of stone shot in England seems to have been discontinued since the reign of Elizabeth, and even in that reign the number of them, in proportion to those of iron, appears to have been very small. The manufacture of them, however, seems to have improved as in inventories of the period they are described as "polished."

The following inventory of the shot on board a ship called the 'Eliza Bonadventure,' extracted from a book in the Tower, entitled "The surveye of the Queene, her Majestyes shippes, taken and received by the officers of the ordnance, 25th January, 1575," well illustrates the proportion of stone and iron shot used at the time, and is likewise a very curious record of the extraordinary variety of cannons

* The passage in Kennett, p. 427, is as follows:—The Earl of Salisbury, the Lord Cobham, and Sir John Wenlocke, by their vigilance, kept not only the city in order, but defended it against the Lord Scales, who annoyed it with his great ordnance, and did much harm to the citizens, but these lords, by mounting guns on the other side of the Thames, over against the Tower, and preventing all supplies of victual to be sent, put him to great straits and losses.

with which Her Majesty's ships were armed. The 'Eliza Bonadventure' had "2 dimi-cannons, 2 canon piers, 6 culveringes, 10 dimi-culveringes, 8 sacres, 2 minions, 2 fawcons, 1 fowler with 2 chambers, 3 port-pieces of forged iron with two chambers apiece, and 4 fowlers of forged iron with like chambers."* In all 40 pieces of ordnance.

The variety of shot was still greater than the variety of guns, and must have been exceedingly perplexing. The following is the inventory :—

Crosse barred shotte, vizt. for dimicanons	4
For culveringes	12
For dimi-culveringes	16
For sacres	3 and 1 min.
Jointed shotte vizt. for di canons	3
For culveringes	4
For sacres	4
Di canon shotte	48
Culveringe shotte	154
Di culveringe shotte	234
Sacre shotte	116
Minion shotte	26
Fawcon shotte	null
Fawconete shotte	55
Bare shotte of yron	80
Hollow shotte of lead	37
Stone shotte, polished, vizt. for canon Piers	8
For port-pieces	30
For fowlers, roughe	34

In this case the proportion of stone to iron shot is less than 1 to 10.

There are some other stone shot preserved in the Tower, viz., two of large size, one being no less than two feet, and another 18 inches in diameter, and two others of about 7 inches, which were found about the year 1830 or 1831, 14 feet beneath the surface of a street in Woolwich. The supposition is that the place indicates the site of an ancient stone shot factory.

Although the introduction of iron shot reduced the calibre of guns, yet mortars of a very large size continued to be used. In the time of Louis XIV. mortars were used, the shells of which weighed 490 pounds. These mortars, which were called "comminges" (a name given to them by Louis XIV. himself at the siege of Mons, in 1691, as a joke upon the figure of one M. de Comminges), held a charge of 48 pounds of powder, and the shell a bursting charge of

* At this period a demi-cannon was a 33-pounder, with a bore of $6\frac{1}{2}$ inches; the cannon piers were chambered, or breech-loading pieces, for throwing stones, and were mostly 24-pounders; a culverin had a bore of $5\frac{1}{2}$ inches, and threw a shot of $17\frac{1}{2}$ lbs.; a demi-culverin was a $9\frac{1}{2}$ -pounder; a sacre a $5\frac{1}{2}$ -pounder; a minion a 4-pounder; and a falcon a 2-pounder. Fowlers and portpieces were smaller pieces, hung on swivels.

12 pounds. They appear to have been last used at the siege of Trarbach, in 1733, and before Tournay, in 1745. After that time they were discontinued, chiefly, it is supposed, on the ground of the difficulty of moving them.

The two great Villantroy howitzers, which were cast at Seville, in 1810, to be used before Cadiz, lately stood in front of the arsenal at Berlin.

Before concluding the subject of large guns, some account should be given of the monster mortar used at the siege of Antwerp.

It was a perfect cylinder without trunnions, but with handles on each side. Its weight was 15,365 pounds French. It lay at an angle of 45 degrees, in a wooden bed, held together by iron bolts and bands. Its shells were loaded with 102 pounds of powder, and weighed 1,083 pounds (French.) It took 16 men to serve it.

The hyperbolical statement that there is nothing new in this world, receives some countenance from the fact that in employing guns of vast calibre we are only returning to the practice of the earliest ages of gunnery. The difference between the big guns of the 14th and 19th centuries is incalculable, but it is a difference not of principle but of detail; the form of the gun, the construction of the bore, the shape of the shot, have all contributed to make the modern cannon vastly superior to its prototype, but the chief improvement in the destructive power of artillery is due to the employment of larger charges of gunpowder, and the possibility of using larger charges of gunpowder is due to the superior resisting power of the gun. It is remarkable that no essential improvement has been made in the manufacture of gunpowder since its invention. There is in existence a receipt for making it of the time of Edward II., which differs in no material particular from that now in use in the Government works. The early gunners, therefore, had not so much to learn. What is remarkable is that the science should have slumbered so long in comparatively modern times.

FIELD-MARSHAL SIR JOHN BURGOYNE.*

Colonel Wrottesley has done good service in producing the two volumes before us, and from their perusal we imagine most readers will rise with a satisfied and refreshed spirit of gratitude to the author of so excellent and well-served a mental feast. From the first page to the last there is evidence of careful arrangement and

* "Life and Correspondence of Field-Marshal Sir John Burgoyne, Bart." By his Son-in-Law, Lieut.-Colonel the Hon. George Wrottesley, R.E. (R. Bentley & Son.)

a studied desire to please without in the least avoiding disagreeable truths. Thousands, for instance, will learn for the first time, or have their recollection of the fact revived, that the hero of the Peninsula and the Crimea, the guest of royalty, the chosen adviser of statesmen, the Von Moltke of our Army, the distinguished courtier, the accomplished diplomatist, the strict disciplinarian, the uncompromising and zealous servant of the public, the staunch upholder of progressive reform, the chivalrous defender of fallen greatness, the incarnation of a blameless life, was the illegitimate son of a professional songstress; but it is equally gratifying to think and to feel that none the less will be the admiration and respect entertained for the veteran warrior by present and future generations. His father, General Burgoyne, of an illustrious Bedfordshire family, had however previous to this illicit connection (which was formed years after the death of his wife) married into the noble house of Stanley, having eloped with the sister of his college friend, Edward, twelfth Earl of Derby, the founder and patron of "The Derby." Lady Charlotte Burgoyne died without issue in 1776, and upon the demise of the General in 1792, Lord Derby generously took upon himself the maintenance and education of his four impoverished orphans, of whom the eldest was John Fox, the future Field-Marshal.

The subject of our memoir entered the service of his country as second lieutenant of Engineers in 1798, and two years afterwards embarked for Egypt with a detachment of military artificers as part of Sir R. Abercrombie's Expeditionary Force. During the peace of 1802 the young lieutenant made a tour through Egypt and Turkey, keeping his eyes open to good account, as appears from the following letter:—

"La Valctte, December 24.

"Sir,

"The very interesting intelligence which you did me the honour to communicate this morning I conceive to be sufficiently important to send to his Majesty's Ministers. I am therefore to request that you will do me the favour to send me a note of what you were told of the French envoy Mr. Sebastiani's conduct when he was at Zante, and who is your author. If you know anything further of that gentleman's proceedings in the Morea or any other place pray relate it, that I may send it to Mr. Drummond, who will connect it with other corroborating intelligence.

"Can you inform me of the state of the government of Corfu? What part are the Russians acting there? and how far do they interfere with the civil affairs of the island?

"I have the honour to be, dear Sir,

"Your most faithful and obedient,

"ALEXANDER BALL.

"To Lieut. Burgoyne."

At this period Lieutenant Burgoyne had just completed his twentieth year. Now there are many men of this time of life capable of shrewd, witty and even reflective composition; but few, we take it, who on a mere tour of pleasure could draw up a paper considered of such weight and importance as to be laid before the responsible Ministry of the country. It is, however, a commentary on his after penwork, and in some sort affords a guarantee of the faithfulness of details given in the Journal which happily for us he ultimately kept. Throughout this Journal is evidenced that accurate insight into men and manners only to be found in conjunction with a well-balanced mind and trained observation, and the discriminating habit thus early formed sheds a light of more than ordinary value upon his views of contemporaneous events. His correspondence was in fact so excellent in sense and method that it may be said to have been the primary cause of his successful career, for it brought him to the notice of no less a personage than Sir John Moore, who was so prepossessed in his favour that he applied for his services as Commanding Engineer of the Expedition which left Messina for Portugal in 1807, and again in the following year to proceed to Sweden; both of which undertakings, however, proved abortive. It was during the expedition to Sweden that Captain Burgoyne commenced his admirable journal and series of notes. In the latter he enters more generally into the affairs of the nation, and describes peculiarities of dress or demeanour with the following graphic delineation:—

“The Swedish monarchy is most absolute and tyrannical, and will probably not last long under its present form; for the better orders, who are well informed, must feel it much. The king is sovereign master, may make every subject in his dominions a soldier if he pleases, and calls forth conscriptions as despotically as Napoleon. He issues sumptuary edicts at pleasure, the only reason given being that it is the king’s will. The press is most abjectly kept under, and many restrictions are made upon importing foreign books or papers. No French newspaper is allowed to be brought in, nor any English ‘opposition’ papers; and since 1804 no Danish books are allowed, although the language is very nearly the same, and of course many valuable discoveries and works might be got from them. The king is his own minister, writes and receives despatches, and communicates with foreign ministers, &c. A melancholy instance of the bad effects of this occurred in the communications between him and our General, Sir J. Moore. His present Majesty wants temper and abilities to render him equal to this business.

“The Swedish peasantry are undoubtedly an exceedingly fine race of people. The men are in general tall, robust, active, and good-looking; their bravery has never been doubted, and their

honesty is so exemplary as to exceed, I should fancy, that of any other nation in Europe. A robbery in this country is scarcely ever heard of, and you may trust a common Swede with anything of the greatest value. They are civil, obedient, and contented; and the conscripts, drilling from six to eight hours a day, to be sent immediately to the frontiers, seem to treat it as an amusement. They rarely or never desert, and their qualities are such as to render them peculiarly adapted to form good soldiers. They never pass a gentleman without taking off their hats. Notwithstanding the despotic power with which they are ruled, they have independence enough not to allow themselves to be imposed upon except by proper authority, and many a traveller has been in danger of getting a good thrashing, for resisting what the peasant conceived a just demand. They are the greatest lovers of their country, and of the credit of the nation. In disputes concerning money to be paid them, in which it has been afterwards found that the peasants were right, they have been known, on being told that they were not good Swedes but must be foreigners, not only to give up the sum in dispute, but even to refuse to receive what there was no doubt was their right. The Swedish peasants are extremely well clad, nearly all alike, in a straight-cut coat reaching below the knees, and breeches of a strong, coarse pepper-and-salt coloured cloth, a large black hat, worsted stockings, sometimes blue, red garters below the knees, and good strong shoes. They usually wear their hats very long before and behind, probably for the warmth it affords in the water.

“The women are robust and have fair complexions, but are not generally pretty. They work as the men—follow the plough, dig the ground, ride the horses like men, and occasionally follow travellers to bring home the horses. They carry goods to market, drive the carts, row boats and ferries, fish—in short, do everything but go to war, and follow the trades of blacksmiths, carpenters, or other artificers. Their dress, both of the lower and middling class, is unbecoming; but in their persons they are, as well as the men, extremely clean and neat. The women are the usual servants in a house, and at an inn you are seldom waited on but by them and young boys.

“The Swedish women make no scruple of doing many things which would very much shock the delicacy of any other women. The maid-servants walk into a gentleman’s room without ever thinking of knocking at the door, if there is anything she has to take in or do there, even though she knows he is dressing or undressing; she does not think of retiring because she finds him with only his shirt on; nor does she, by laughing or otherwise, show that she is sensible of the least indecorum. I have frequently seen them tying up their garters in the street, and other things of the same sort, which I presume custom has rendered perfectly correct conduct. Of all the peasants we saw, we re-

marked that, curiously enough, the *Goths* were the best behaved."

But we must hasten on to fields where Burgoyne laid the foundation of a lasting reputation and honourable professional fame, amid the ruins of Ciudad Rodrigo, Badajoz, and St. Sebastian. It may be well to touch upon previous minor operations during the earlier campaigns; for, not to speak of the disastrous retreat to Corunna, which cost Burgoyne five years of deafness and the loss of his baggage and horses, he was actively engaged in difficult and dangerous enterprises, when surveying the country or blowing up frontier fortresses, roads, and bridges. As a sample of his proceedings, the destruction of Fort Concepcion may here be given:—

"21st July, 1810.—A short time after daylight, as the picket of 14th Dragoons proceeded to the crosses near Barquilla, they hit upon a body of the enemy just beyond Castillejo; the alarm being given, the remainder of the squadron of the 14th, who were in Aldea do Bispo, joined them, and the whole retired, the enemy being about two or three regiments of cavalry, supported by infantry. Immediately it was ascertained that the French were in sufficient force to push our people back, the mines were lighted in the fort. Captain Mulcaster, of the Engineers, went up to warn me to light them, but it was already done; the dragoons I sent down to give every one they met notice, neglected to tell him, and he was going up the ramparts to look for me, when, smelling powder strong, he looked into one of the passages and saw the portfire burning. Of course, he made off as fast as he could, and went down to the cavalry, who were skirmishing near Aldea do Bispo; when he got down there, the mines exploded, and he observed that those on that side took the desired effect. From Val de la Mula I could see that another side was also attended with success, as well as those in the outworks and detached redoubts."

Wellington was at this time making his cautious retirement behind the lines of Torres Vedras, and Captain Burgoyne's instructions being to explode the mines only when the enemy advanced in overwhelming force, a considerable degree of judgment had to be exercised.

In 1811 the Engineer force was formed into a distinct body, through the exertions of Burgoyne, as we learn from a letter to his sister:—

"I continue with General Picton, who I am sorry to say has been lately laid up with a severe attack of ague, but is now getting better. My principal business now is training 200 men of different regiments to the duties required in a siege, which, to our disgrace and misfortune, we have no regular establishment equal

to, notwithstanding the repeated experience of the absolute necessity of such a corps to act under the Engineers in a campaign. For want of such an establishment we are frequently led to the loss of valuable officers, and very undeserved discredit. The undertaking I am set about will be only temporary, and will supply very imperfectly this deficiency."

The force was embodied in good time for the glorious campaign of 1812, when the successful siege and storming of both Ciudad Rodrigo and Badajoz tested its powers to the utmost. At each of these places Burgoyne lost several brother officers, for whom he mourned sincerely. Of his friend, Captain Mulcaster, R.E., he says:—"Poor Mulcaster was struck in the head by a cannon-shot, and half of it was taken off; his death was instantaneous. A better fellow or more promising officer never existed." Such kindly passages occur frequently in his letters and journal, proving that at no period of the war were his better feelings blunted. One other thing is not so curious as characteristic, that neither in letters nor journal, nor even in friendly conversation, does he make mention of his particular share in these transactions, much less give any hint of exploits personally performed.* But, lest it should be imagined, for an instant, that he shirked the point of danger, his Editor very correctly in an extract from a pamphlet entitled, "Recollections of the Storming of Badajoz," by Captain McCarthy, of the 50th Regiment, wherein the latter relates that he was visited by Major Burgoyne at post so swept by the fire of the enemy, "that it was almost impossible to twinkle the eye on any man, before he was knocked down."

At the siege of the Castle of Burgos, six Engineer officers were killed or wounded out of the fifteen engaged in the operations; but the attack failed through, what Burgoyne stigmatized it, the "unmilitary policy" adopted by Wellington (on that occasion, for the last time) of employing small storming parties; and Sir J. Jones, in his "History of the War," thus records his opinion:—

"This siege failed entirely through want of the necessary means of attack with the besieging force. The plan of the attack of Burgos had considerable professional merit as well as boldness, and notwithstanding its failure, added much, in the opinion of the army, to the previously high reputation of Lieutenant-Colonel Burgoyne, the Engineer in command."

In addition to this tribute to his skill, the late Colonel Nevile

* In a poem written by the Rev. E. Hornby, it was said of Burgoyne that:—

"With knowledge clear, with plain, unvarnished speech,
He draws the ambuscade, or mounts the breach;
Tells tales of blood to raise a friend's renown,
And only fears lest aught should hint his own."

says of him in his Memoirs :—" Colonel Burgoyne was the wonder of us all; he seemed to have a charmed life, for he was almost ever in the trenches, mines, and lodgments." At the Battle of Vittoria, Burgoyne's horse was disabled, but he soon found another, as he relates in a letter to his sister :—

" My poor horse, well known in the army for my attachment to him, from having done the whole of my work for three years, was wounded under me in three places; and while I was lamenting the loss, and particularly the want of a horse at such a time, to a friend of mine in the Artillery, he, poor fellow, was knocked off his, which I mounted, after seeing the master safe with a surgeon and attendants. My own horse, I am happy to say, is likely to recover."

At the taking of St. Sebastian, he received a musket-ball in the jaw, but it only gave him a temporary 'stiff-neck.' The loss of officers among the Engineers was, as usual, heavy on this occasion, and among them was Sir R. Fletcher, R.E.; the command, therefore, devolved upon Burgoyne, but he was eventually superseded by a senior officer in the corps; and, to compensate him in some measure for the disappointment, Lord Wellington named him as Commanding Engineer with an intended expedition to America. Of this disastrous expedition we forbear to speak. The affair culminated on the 8th of January, 1815, in the unwise assault on New Orleans, and is thus briefly recorded in Burgoyne's journal :—" Attacked the enemy's position without success. Sir Edward Pakenham killed."

This untoward service, moreover, prevented Burgoyne from sharing the glories of Waterloo, although he arrived in good time to join the army in the Netherlands, had he been at once successful in his application to proceed thither. He even applied for permission to accompany his old friend Picton as A.D.C.; but was refused on the ground of his rank being too high for so subordinate a position. And when, at length, on the personal representations of Wellington, he was allowed to proceed to the Continent on the 27th of June, one of the decisive battles of the world had been fought and won. Waterloo has been so eclipsed by the magnitude of modern conflicts, we do not feel it necessary to revert to Burgoyne's admirable " Remarks made on a Visit to the Ground," but we can vouch for their excellence. The honours conferred for the campaign of 1815 were not to be shared by Burgoyne, who, under some flimsy pretext, was deprived of the justly-earned distinction of K.C.B., so liberally dispensed to his contemporaries of the Peninsular War; but he was offered simple knighthood, the proffer of which *civility* he declined in a dignified manner, not so much on his own account as that he considered it an insult to his corps.

In 1817, Lord Mulgrave granted him ten shillings a-day good-service pension, on the recommendation of the Duke of Wellington ; but as peerages and baronetcies were distributed profusely to several of his comrades in youth and in arms, it is not surprising that he concluded he was slighted ; being, however, of a buoyant and sanguine temperament, he soon shook off this fit of the blues, and looked forward to the calm decision of time as his reward. But one result, disadvantageous to all of us, was eliminated out of this temporary despondency, inasmuch as he lost interest in the Peninsular campaigns, and although from his personal journal and other sources, notably the military correspondence of his deceased friend, Colonel Squire, R.E., left to him by will, he could readily have composed a reliable History of the War, he renounced the intention then and for ever ; nor even when Mr. Bentley, the well-known Publisher, endeavoured in after years to rouse his dormant literary spirit for the task, could he be induced to comply, and in fact he handed all his notes and journals to Sir John Jones, who weaved them into his well-known "History of the Sieges of Spain." This author, in writing to him a few years afterwards, says :—

"We do not either of us seem born to be overloaded with personal honours. You will, I think, in the long run, have justice done to you, and come in for something ; another war will bring officers all to the proper level." And Colonel Wrottesley truly remarks :—"This prediction was fulfilled, but it speaks little for the discrimination with which honours are conferred for military services, that Burgoyne, by far the ablest military engineer of his day, was allowed to pass unnoticed into civil life ; and that forty more years of arduous and responsible duties were exacted from him, crowned by services of a peculiarly valuable and conspicuous character, at the greatest siege of modern times, before he obtained the same honours which had been bestowed at this period upon two of his comrades—officers doubtless of merit, but whose services in the field would bear no comparison with his own, and to both of whom he stood at the time actually superior in army rank."

Yet he cannot be said to have been altogether unfortunate, when at 31 years of age he returned to the friends of his childhood loaded with honours and with an established reputation. If a man's friends are any indication of his worth, as frequently proves true, then may Burgoyne be called pre-eminently worthy. The pages of these absorbing volumes teem with kindly notes from individuals of all classes, creeds, and races, at home and abroad ; not butterflies of the hour hovering round the successful man, but deeply attached and constant friends. Lord Derby was his first and best, and never lost an opportunity of evincing his predilection ; but there were others who more or less clung to his simple,

candid nature, and all but constituted him an idol in their estimation. Yet Burgoyne never presumed on this universal kindness of sentiment. No doubt it gratified his *amour propre*, and he was sensitive to praise—perhaps more than to blame—but it was a laudable feeling founded on the pleasure such honour and glory imparted to his wife and family. In the early letters to his sister, and later to his wife, this tendency is very evident, and so far from detracting from his dignity, is highly honourable and creditable to his head and heart.

In 1821, Colonel Bourgoyne was united in marriage to Charlotte, daughter of Colonel Rose, of Holme, and henceforth his journal and memoranda are almost invariably intended for her wifely eye and interest.

Among other notes of congratulation on the event was one from an early companion in arms, Boothby, of the Royal Engineers, who, having lost a leg at Talavera, had settled down into a country curacy :—

“From the bottom of my heart, my very dear friend, do I wish you happiness, and that marriage may confer upon you all those blessings for which your heart and understanding are formed. In congratulating *you*, I rest upon a confidence in your sober judgment and discriminating good taste; but in congratulating *her*, she might well, if she wanted confirmation, receive my words as no idle sanction of her warmest expectations. You and I, my dear Burgoyne, have lived together in brotherly union, and the fancy which your good-nature and modest superiority of intellect kindled in my mind, you lost no opportunity of increased intimacy to improve into an affection tinged even with veneration.”

After this are we not justified in what we assert as to his private worth and integrity ?*

Of his employment in Portugal, in 1827, we need not treat; suffice it to say that his letters during this service are most interesting and amusing. But on his return to England, the Journal becomes brief, and merely records interviews with persons in authority. At the Palace he dined frequently, and was consulted by His late Majesty William IV.; but in April, 1831, he received a letter from the grandson of his original benefactor, which for a time altered the current of his life, and employed his energies in civil concerns during the next 15 or 20 years :—

“Colonial Office, April 6, 1833.

“My Dear Burgoyne,

“Your letter of the 4th has gratified me much, by the regret which you and others express at my removal. While I was writing

* Indeed, we may well say of him that he came up to the Horatian ideal of a man :—

“Integer vitæ, scelerisque purus.”

this sentence, Sir J. Hobhouse was announced, and you may be sure I did not lose the opportunity of giving him the strongest recommendation in your favour. Not, as I told him, that he can probably do anything for you, but that he may be prepared to consider you as one on whose ability, labour, honesty, and discretion he may most implicitly and entirely rely. I should very much regret your leaving your post for the present. I offered you the situation because I thought you better qualified for the duties of it than any one I knew, and though you have now put matters *en train*, the business will for some time yet require a steady hand, more especially if the new Grand Jury Bill should pass, which will give to your board a great latitude in recommending persons as local surveyors and engineers. I know *you* would not job such appointments. For my own part, I should at all times be glad to promote your interest, by finding you more agreeable employment elsewhere, and I hope you will never be unnecessarily scrupulous in applying, if anything should turn up in your line.

"I go down to my election on Monday. I hope and believe all will be quiet.

"Ever yours sincerely,

"E. G. STANLEY."

On his return from Ireland he was variously employed, and in 1846 he drew up the famous letter on the defenceless state of the country, which gave rise to the still more notorious letter of the great Duke in corroboration, it having crept into the press through the mistaken zeal of a lady friend. In the following year he was again employed in the sister isle on a Relief Commission, and with the usual result to his labours, praise and satisfaction. In acknowledging his elaborate report, Government was pleased thus to express its approbation:—

"This result is principally due to the patient industry and never-failing sagacity of Sir John Burgoyne, who was specially appointed to this duty as chairman of the commission; and it is greatly to his honour that he did not suffer himself to be discouraged by the formidable difficulties which attended the commencement of the undertaking, and that no untoward circumstance occurred during its progress which could be justly attributed to want of foresight and good management on the part of the commission."

For the next few years he followed up his ideas of National Defence, making use, for this purpose, of the *United Service Magazine*, and in 1852 the Duke of Wellington procured for him the distinction of the Grand Cross of the Bath. But so poor in purse was Sir John, that at first he was inclined to refuse the honour, and did so, in fact, on the grounds of his being unable to pay the fees; but upon investigation it was found possible to remit these

ancient charges. Sir John, never a wealthy man, was frequently embarrassed pecuniarily, and never more so than when in 1854 he accepted the offer of the Duke of Newcastle to proceed to the Crimea.

But previous to this event he was employed on a special mission to Turkey, to ascertain the actual state of affairs, and to determine upon a united plan of action. *En route* he was entertained by the late Emperor, and impressed his views on the French Court with good effect. He visited Omer Pacha, and conferred with him frankly, having formed a high opinion of his talents and capabilities. He was also received by the Sultan, and of this interview he gives a humorous account:—

“About two miles from Pera, we pulled up at the gateway of an avenue of a fine pile of buildings, where there was a scrubby guard, of the ordinary Turkish soldiers, of six men. We walked down the avenue, and entered one wing of the buildings, which appeared as if deserted. Seated in a well-furnished reception room, we were joined by a Secretary of the Sultan, with whom we had pipes and coffee in the usual manner. A kind of upper servant then came in to announce that the Sultan was ready, and we four walked out together across a garden of terraced walks, with fountains, without a soul to be seen, and entered the opposite wing under marble columns, through a large open hall, in which were two or three common-looking servants, up a tolerable staircase, and into a large empty ante-room. At the opposite corner, our guide drew a curtain on one side, the Secretary stopped behind, and Count Pisani and I entered, and found, in a room without furniture, except the divans round the walls, a single man standing up a little in front of the divan. He was dressed like a common Turkish gentleman, quite plain; a short man, apparently about thirty-two years of age, his hands in his coat pockets, and with the toes of one leg turned in so much, and knee so bent, that he looked like a cripple, which I understand he is not at all. I paused for a moment, but it struck me at length that he must be the Sultan, and I made a bow, then advanced, and when near him made another, Count Pisani being at my side. I looked at the stranger, and he stared at me without saying a word, so, after a pause of some seconds, I thought it necessary to begin, and said, through the interpreter, that I was proud of having the honour of paying my respects to his Majesty; to which he muttered, in a deep bass voice, that he was glad to see me. Another pause, and as he did not seem inclined to say anything, I began again, that I was on a mission from my Government relative to the war, and had observed much that I hoped was satisfactory; to which he wished me a long life. Another pause; then he made a slight inclination of the head, which I thought a sign that I might retire, which I did accordingly; rejoined the Secretary in the

ante-room, and we repaced our way through the deserted halls and garden! Surely never was a monarch before attended with so little state!"

On the 11th August, 1854, he was hastily summoned by the Duke of Newcastle, and asked if he would join the Army in the East. Sir John's prompt reply was that he would be ready to start the following night by the mail, *and he went accordingly*; which alacrity will recal the cartoon in '*Punch*' of Lord Clyde, when, a few years later, he was ordered to India, and was equally quick in "making tracks," as our American cousins would call it. But before thus venturing to employ a man nearly seventy-two years of age in so important a position as second in command of our Army in the Crimea, the Duke "interviewed" Sir John, and put him, as it were, through his facings. The latter thus describes the meeting:—

"I have just had a long interview with the Duke of Newcastle, who called here on me, about many matters regarding all parts of the world, on which I had not previously understood his views; it was altogether a very amicable meeting, and with great professions on his part of being very confidential with me."

His arrival at the seat of war was welcomed on all sides. Among several notes, here are one or two to the point:—

" ' Britannia,' Sunday.

" My dear Burgoyne,

"I rejoice from my heart that you are come. I only wish I could have seen you yesterday when I was at Varna with Admiral Dundas, but I had to take shelter with the Consul whilst the conference with the Marshal was going on, so I missed you. However, I shall see you, I trust. I ask no questions, but have seen enough to know that it is happy you have come.

" Adieu, faithfully yours,

" W. BRERETON."

" Buyukderé, 25th August, 1854.

" My dear Sir John,

"I hear you have arrived in Therapia. Thank God! it is our best chance. I congratulate all concerned.

" Very sincerely yours,

" J. A. H. LLOYD."

It is a somewhat grave reflection (and one that from a happy point of view may have prompted Mr. Vernon Harcourt last year into encountering a hostile audience at the Royal United Service Institution), that both at this period and always, Sir John considered the Crimean expedition a "desperate undertaking;" for our success did not alter his ideas. There was, in fact, more good luck than good management in the fact that our army landed on

the shores of the Crimea unopposed, and had, therefore, time to prepare to fight the Battle of Alma. But they laugh who win, and so it was with us. What followed is matter of notorious and comparatively recent history; but we will take time to insert an extract from a letter to his friend Colonel Matson, R.E., dated 27th Sept., referring to Burgoyne's celebrated memorandum in recommendation of the "flank march"—

"Balaklava, 27th September.

"I enclose a memorandum, on an idea which I had long entertained, which I presented to Lord Raglan, who would not give an opinion upon it, but desired me to discuss it with Marshal St. Arnaud. The French officers pointed out many difficulties (among others that Balaklava was believed to have forts that would be troublesome to reduce, &c.), but I argued that most of them were surmises only, and the Marshal put an end to the discussion by agreeing with me, that difficulties seen at a distance were generally greatly reduced when you came to grapple with them. We had a most severe march, the distance not great, about twelve miles, but the entire combined army, with baggage, &c., &c., on *one* road, part of which (about six miles) narrow cross-country road, between very close and high brushwood, and not a drop of water the whole way. The French Division and Head Quarters, and other baggage, not in till next day. The move, however, is now considered very advantageous."

Of the difficulties of the siege of Sebastopol the best idea can be formed by the perusal of the following letter:—

"Camp before Sebastopol, 18th October.

"We continue at our arduous enterprise. It is not a fortress we are attacking, but an *army* deeply entrenched in strong ground, and with an immense provision of heavy artillery.

"Our corps (as I repeatedly assert to Lord Raglan) are doing wonders by their exertions. In a soil where the *rock* shows on *the surface*, and only some inches of soil found in the interstices, they get tolerable cover in one night, and construct batteries, the substantial character of which is proved by the few casualties under heavy cannonading; the sites for platforms, magazines, &c., have to be made good by blasting.

"Platforms, splinter proofs, &c. (those from the shipping being insignificant in amount), are made from the odds and ends of timber and plank collected from houses pulled down; under all these advantages the work goes on with rapidity, and embrasures, platforms, &c., require less repair and readjustment during very heavy firing than I ever before knew. Shells have exploded on the magazines without accident, the whole making sound, good work; with half the men, we have, I believe, brought more guns into battery than the French.

“The arrangements and exertions of the Artillery have been, as usual, most admirable, and their active and good firing yesterday drew forth warm terms of admiration from the French officers who witnessed it. The navy engaged in the batteries are equally deserving of praise.”

The dreadful winter of 1854 was passed by Sir John in the field, but he occupied his leisure in drawing up “Hints” on the proper organization of the British Army, which were published in the February Number, 1855, of this Magazine. Sir John was indeed a frequent contributor, and we may be pardoned if we venture to readmit a few passages from the article in question:—

“We are certainly far from being a military nation, and have very little experience in campaigning. We have some magnificent material, much of which is beautifully organised, and very perfect in abstract parts; but when put together as an army in the field, at long intervals, the whole is disjointed, and many very important elements have to be created, or *improvisés*, as it were, with a bad, or without any previous system, and without masters on the subject. Our ordinary arrangements are calculated for little more than home or colonial service. Nothing can be finer than the primary organization of our infantry; the men are magnificent, well clothed, and taken care of in quarters, of superb appearance, and in their training and movements as near perfection as any troops in the world. They have also (in common with every branch of the service) a spirit in action, which, ample and universal experience shows, cannot be disputed. The officers are excellent; but both officers and men, on first starting on actual service, are greatly wanting in many necessary qualities.”

Of our future Control Department, he says:—

“Each department of the army and every division of troops require a standing amount of transport to be continuously attached to it. This amount of transport will be larger or smaller according to the country, season, and nature of the service. For instance, the engineers require transport for their *depôt* of stores and tools; the medical department, for their waggons and other means of carrying sick and wounded, for their field hospital appliances, medicine chests, &c.; the general staff, for their marquees and office implements; the troops, for their spare ammunition, and perhaps tents, and a few days’ provisions, in addition to what the men carry, &c. This amount of transport, with at least a certain reserve for general purposes, it is submitted, should be fully organized as a military body, with its responsible officers, but on a system adapted to their particular service. The men composing it should be enrolled, and drilled to all the first rudiments of a

soldier,—very lightly armed, wearing a uniform, but, where convenience was peculiarly studied, with a cavalry valise for their necessities, instead of the cumbrous infantry pack. So far from looking lightly on this corps, it should be considered one requiring peculiarly good conduct and trustworthiness, and should therefore be respected and well paid.”*

Sir John Burgoyne's letters throughout the campaign are remarkably copious and luminous, entering as they do into the pettiest details as well as into the most comprehensive plans; but we do not consider it fair to the Editor or the reader to anticipate the pleasure of their regular perusal.

In March, 1855, he was ordered home, his presence being required as Inspector-General of Fortifications, and Sir Harry Jones took command of the Engineering operations. The following letter from Lord Raglan contained the official announcement of the order:—

“ Before Sebastopol, March 19th, 1855.

“ My dear Burgoyne,

“ I send you, according to your request, a copy of Lord Panmure's despatch, desiring that you would return to England, it being considered essential that you should resume your important functions as Inspector-General of Fortifications.

“ I cannot allow you to take your departure, without expressing to you the great regret I feel to be deprived of your services, my deep sense of the value of your assistance throughout the arduous enterprise in which this army has been engaged during the last six months, and my sincere conviction that your conduct of the operations of the siege of Sebastopol, affords abundant proof of your great ability and experience, and of how much may be effected by science under the most unfavourable circumstances of ground, and with very limited means as to men, the strength of the army having been at no time such as to admit of your being furnished with as large working parties as you could have employed with advantage.

“ Trusting that you will reach England in good health, and that you will find your family well on your arrival, I remain, with every sentiment of regard and respect,

Yours, &c.,

“ RAGLAN.

On the anniversary of the battle of Inkermann in this year he received a summons to Windsor. At dinner we are told the Queen wore the red ribbon in acknowledgment of the day, and presented an opportunity to the blunt but courteous soldier of paying a very pretty compliment in turn.

With the Prince Consort he soon became on terms of confiden-

* “ Hints from the Crimea on the Organization of the British Army.”—See *United Service Magazine*, February 1855.

tial familiarity, and the "Coast Defences" were the result of their deliberations.

His busy pen seldom had rest in the comparatively dull ensuing period, and extracts from his "Reflections on the Crimean War," "Notes on Todleben's and Kinglake's Histories," as given in these volumes, will now be read with avidity, notwithstanding that the latter literary lucubrations were written in his 86th year!

There were indeed few problems of the hour or of the future he did not trench upon, and always in the broadest and most cosmopolitan spirit, as to which he received the following complimentary assurance from Mr. Brunel, anent an ingenious but impracticable plan of a gunboat proposed by the latter, and submitted by Lord Palmerston for Sir John's opinion:—"You are the first professional man of high official rank that I have met with, ready to assume the possibility of a man who is neither R.E. nor R.N. having an idea worth attending to."

To his experiments for the application of iron to the protection of works on shore may be attributed our present steel forts, while his later correspondence with Lord Rosse on the subject of iron-clads is too sadly suggestive to quote *in extenso*. So early as 1858, his prescient intellect foresaw the employment of mitrailleuses, and he thus places on record his opinions with regard to these deadly weapons since developed, almost to perfection, by the eminent American mechanic, Dr. Gatling:—

"Sir Charles Shaw's Battery of Musket Barrels.

"War Office, 2nd December, 1858.

"To the Secretary of State for War,

"Having examined Sir Charles Shaw's proposed new implement of war, I believe that it may so far be found applicable to boats, fortifications, and forts, and perhaps ultimately in some degree in the field, that I would recommend a thorough trial of its principles.

"The machine as now exhibited by Sir C. Shaw, consists of 24 Enfield rifle barrels fixed in a row on an iron frame, ill-contrived, heavy and clumsy, and mounted on a light carriage with two wheels.

"Sir Charles is quite aware that it would admit of many improvements, but is not prepared to undertake them.

"Should General Peel consent to a trial by a new construction at the expense of the War Department, I would submit for consideration a system that would greatly facilitate the experiment, while I believe it would much improve the general arrangement of the implement.

"I would propose then to confine the machine to a frame containing four barrels only, as the unit of the implement, which could be multiplied at pleasure by very simple means. The

manner of mounting also for conveyance, or for the field, might be left for distinct after consideration.

"The frame should be as light as possible, consistent with strength, firmness, and durability.

"Each barrel easily removeable if required.

"Breech-loading may be considered almost indispensable, either by Restell's, which is a favourite system with Sir Charles, or any other.

"The firing might be either by distinct barrels, or simultaneously, at pleasure; and if there could be any contrivance to relieve the shock of the recoil, it might be advantageous.

"The frame to turn a little in front of the line of gravity on a hinge or roller on an under-rest, the elevation or depression on this hinge could be by a screw, or on a graduated segment marked to degrees and distances, and fixed to the rear end of the frame.

"The length of an ordinary musket-barrel is regulated by the requirement of its having with the bayonet a given amount of projection in front of the soldier; this would be unnecessary with this machine, and therefore it is apprehended that these barrels, retaining the same bore, might be shortened by as much, as perhaps 6 inches; and by using a slightly increased charge, be equally powerful; the inconvenience of having a different cartridge would be of less consequence, and in case of any temporary deficiency, the ordinary soldier's cartridge would be applicable at a very small diminution of power.

"The above suggestions, however, would be for the consideration of the officer charged with the superintendence of the machine, in concert with Sir Charles Shaw."

He also made a proposition on the subject of rifled artillery, which, however, it may be opposed to accepted doctrines, we make bold to think will recommend itself eventually to the common sense of artillerists, namely, that the largest proportion of field artillery should be of a light calibre, and so reduced in size as to be drawn on two wheels by two horses only; in other words, we are inclined to imagine that Sir John would have recommended the Gatling of one inch, or 0.65 as actually adopted calibre, as an effective and reliable field gun, or of the .65 calibre since actually adopted into our service.

'Then, again, not only can the Volunteer Movement be traced to his suggestions, but the present "Reserve" scheme may be ascribed to a pamphlet published by him in 1868:—

"The next great desideratum is that our defensive reserve force should consist of more efficient soldiers than our present resource of Militia and Volunteers.

"There are several modes by which this may be effected, all which will probably give rise to objections; and it will be a difficult study how to remove these, or to devise what may effect the object, in a mode more acceptable.

“If the service in the Line could be made more palatable, so as to induce a more numerous and somewhat superior class to enter as soldiers, it would tend to the greater diffusion of a general military capability throughout the community; and this would be much increased if, instead of lengthening the periods of service, as is the present effort, they could be much reduced; and if the soldier of some few years’ regular training were again absorbed among the civil population, remaining available, in whatever shape may be thought best, for the reserve force. It is this that constitutes the power of the Prussian system.”

In fine, of all officers in the Service, Sir John Burgoyne was the most ready to accept real improvements; he gave the introduction of the Minié and other rifles, as well as also of wrought-iron guns, an undeviating support, and remained to the last an unflinching advocate for the promotion of officers who evinced superior and undeniable claims to merit. In a letter to the Commander-in-Chief (the last we will quote), he thus expresses his views on the Army Bill, and the joy he felt, in common with all well-wishers to the Service, that His Royal Highness had no intention of withdrawing from his post:—

“Sir,

“I trust that your Royal Highness will excuse me for venturing to express the high sense which I entertain of the advantage which the military service derives from the retention by your Royal Highness of your present post, at a period of much popular agitation against existing army arrangements, and of proposed organic changes in the composition of our military forces.

“It is impossible to disguise the fact that a strong, though ill-founded, impression exists among the officers of the army, that their interests are in great danger of being sacrificed to the political exigencies of the moment; and I have every reason to believe that the decision of your Royal Highness to remain at the head of the army at the present time, has had a most excellent effect upon the officers of the army at large.

“The comments upon our military system and organization put forward for consideration are innumerable—many of them fallacious, and the more dangerous, as some are founded on plausible arguments, and advocated by conscientious and honourable men.

“Great professional judgment and energy will be required, then, to prevent the injurious consequences that may result from the adoption, more or less, of many of these, as I believe, erroneous views.

“I will not deny that occasionally I have held different opinions from your Royal Highness on some matters of detail, but always with doubts on my mind whether, on that account, I might not be in the wrong; but in the main elements of the constitution of the

army, I am, in common with the army in general, so perfectly satisfied of the sound judgment and high principles entertained by your Royal Highness, that I anxiously hope we may not be deprived of the influence of your watchful advocacy.

“ I have great objection to the term ‘ army reform ’ as applied to this movement.

“ The word ‘ army ’ implies the *personnel* of our forces, and, consequently, that it is that which needs reform.

“ I will venture, however, to maintain that the combatant portion of our army, from the general to the drummer, is of first-rate quality, and needing no other reforms than, like every other institution of the world, to take advantage in improvements of the progress of the age.

“ There is no doubt but that many of the accessory establishments connected with the action and operations of the army, as a field force, are defective, and need great improvements; but the two are confounded, and pre-eminence is given to the wrong one.

“ Now the army, as I define it, is the particular part of which your Royal Highness has especially the charge, and it is excellent in organization, discipline, exercises, and capabilities—acknowledged to be so by very distinguished officers of other countries, with the consolatory addition, in their interests, that ‘ *heureusement,* ’ or, as we should say, ‘ *malheureusement, il n’y en a pas beaucoup !* ’

“ Your Royal Highness’s attention would assuredly always be given to the improvements required for these extra establishments, so immediately connected as they are with the military service; but it is what concerns the efficiency of the body of the army that is most threatened, and where your Royal Highness’s interest is most needed.

“ I beg to remain,

“ Your Royal Highness’s most obedient servant,

“ J. F. BURGOYNE.”

The Franco-Prussian War was a source of great interest to Sir John, and roused him from the stupor consequent upon the loss of his gallant son and heir in the ‘ Captain.’ His letters on the subject of the War to the *Times*, to Lord de Ros, to Napoleon, and others, are all characteristic, and display a marvellous vigour of intellect; but he never recovered the shock of his bereavement, and he died in his eighty-ninth year, on the 7th of October, 1871. . . . In July of this year the usual hospitalities were dispensed at the The Cottage on Wimbledon Common. Apart from the gay throng assembled in the parterre, was an aged but still wonderfully erect figure, who seemed to avoid the bustle of recognition. Suddenly an object of interest struck his vision, and he came over to inspect it thoroughly, unnoticed by any, except

perhaps the writer. It was one of a few ambulances used in the War, and exhibited at the Rifle Meeting to curious spectators. There were two or three, but this one especially attracted Sir John Burgoyne's attention, and he moved away with a satisfied ray of pleasure on his care-worn countenance. He was thinking, no doubt, how the poor bruised soldier, racked and torn by shot and shell, would appreciate the luxury, and might find a short-lived ease and comfort in such a conveyance—to perhaps his grave. A few short months, and I watched a grandly-lone funeral cortège passing along the streets of London, and methought the fine old warrior would have preferred the fate of that nameless soldier, dying amid the din and carnage of the battle-field.

There was present at that same Meeting of our patriotic Volunteers another Field-Marshal, beside whom I stood while he uttered a few words of welcome to the Belgian Garde Civique. He succeeded Sir John Burgoyne as Constable of the Tower, and he, too, has passed away. These two formed links of tried steel that bound us to the past. Is it well or worse that we should have to look to new blood in any future emergencies?

ARTILLERY.*

PART V.—ORGANIZATION AND TACTICS OF ARTILLERY.

Tactical unit of Artillery—Proportion of Artillery in the European armies—Position of Artillery in battle—Tactical rules of Artillery—On the offensive and defensive—Artillery attached to cavalry—In the defence of villages, &c.—In the passage of rivers—Conclusion.

The proportion of artillery requisite in an army is now, more than ever, a question of the utmost importance; and as it forms part of the more comprehensive question as to the proportion of the three arms in an active army, it may be proper to quote the opinion of one of the most competent strategists on the subject.

“In an army,” said Napoleon in his *Mémoires*, “there must be infantry, cavalry, and artillery in due proportion; these three arms cannot be substituted one for the other. There are circumstances in which the enemy would secure superiority by occupying a good position with 50 or 60 pieces, and then it would be futile to attack him with a force consisting of 4,000 cavalry or 8,000 infantry more than he opposed to us. In such a case we require a battery of equal strength, under the protection of which the columns of attack can advance and deploy.

“Doubtless, good infantry is the nerve of an army, but it would be soon destroyed if it had to contend against very superior arti-

* Conférences sur l'Artillerie.

lery. It is a chimerical idea to pretend to rush upon a battery and carry it with sabres. Such an attack may for once succeed, but as for infantry, it will almost always be repulsed with enormous losses.

“In the first wars of the Revolution, our artillery was our best arm, and not a single instance can be cited in which 20 pieces of artillery, properly posted and in battery, were carried by the bayonet.

“It may happen that a general more skilled in manœuvring than his opponent, and wielding a better infantry secures success during a part of the campaign—although his park of artillery be very inferior; but, on the decisive day of a general action, he will cruelly feel this inferiority.”

Such was the opinion of Napoleon; and he contended that our artillery must be equal to that of the enemy, and that we should allow four pieces per 1,000 men of cavalry and infantry. In the armies which he led, the proportion of artillery varied greatly according to circumstances, and no fixed rule can be deduced from them. The best guide that can be taken in the study of this question is the observation of the rules followed by the different powers.

Among all nations this arm is divided into divisionary artillery and artillery of reserve, according as its batteries are attached to divisions of infantry or cavalry, or form part of the reserve.

In accordance with its denomination, the divisionary artillery accompanies the divisions, prepares and seconds their operations.

The artillery of reserve—like the reserve in general—is designed to reinforce a point of the line of battle that may be weak, or to invigorate an attack upon a point of the hostile line of battle.

The following are the proportions of artillery in the armies of the chief European Powers.

In France, the principles which have been the basis in the composition of the armies of 1870, with regard to the artillery are:—1st, three batteries—one of which being a mitrailleuse—for each infantry division, a division of infantry of two brigades having an effective of thirteen battalions or 10,000 men:—2ndly, two batteries for each division of cavalry—the latter consisting of 2,000 or 3,000 men, according as it is composed of two or three brigades: 3rdly, six batteries of reserve. Such is the artillery of a corps d’armée; and it gives the proportion of a little more than 2·7 guns per 1,000 men—infantry and cavalry. In the Army of the Rhine the proportion was three, counting the two regiments of artillery of the general reserve.

In the Prussian Army, about the middle of August, 1870, there were sixteen batteries to each army-corps, distributed as follows:—four batteries to each division of infantry; two batteries to each division of cavalry; six batteries to the reserve. As the army-corps consisted of 27,500 men (infantry and cavalry), the proportion was 3·5 guns per 1,000 men.

In Austria, the proportion is 2·7 guns per 1,000 men, whilst in England, the proportion is nearly four guns per 1,000 men.

It thus appears that France must be classed with those Powers which possess the weakest proportion of artillery, especially, if we consider that the batteries of mitrailleuses are counted in the preceding estimates; and it is certain that the deficient artillery of the French in the late war was one of the prominent causes of their pitiable disasters.

We now come to the consideration of the employment of artillery in the field.

Its purpose being to second the infantry, the first thing to be determined is, therefore, its location with respect to the infantry—either in column for the movements of troops in the theatre of war, or in the line of battle.

In the solution of this problem, Captain De France adopts for the most the admirable suggestions of Colonel Lewal in his conference on the march of an army-corps, given in 1860.

The march of troops in the field is directed in view of battle. Therefore, in the column, the elements of combat—that is, the different fractions of troops—should be classed in the order in which they are to take part in the engagement, and consequently, if the disposition of the conflict were known, the order of march would follow as a matter of course by directing the entire order of battle upon any point whatsoever—as is done in line-evolutions. We should thus secure the logical, rational order in column, since a simple deployment would reproduce the requisite order of battle. But there is no normal order of battle; it varies *ad infinitum*. On the other hand, the definitive order of battle cannot be fixed upon by the commander-in-chief until after he has been enabled to ascertain the position and strength of the enemy. Nevertheless, it would be disastrous to wait for that moment without doing anything. As soon as the enemy is signalled and an engagement is imminent, preparatory dispositions must be effected, and the troops must be disposed in a transitory order of battle, such as may suit all modifications that might become necessary or expedient.

This preparatory order of battle should always be the same and should always constitute a type, useful and advantageous, on all occasions. We have now to inquire what it should be.

The phases of battle consist in the commencement of the action, its development, and victory. They lead to the operation of an army-corps in three portions to meet these three requirements. In this manner, as Jomini observes, the order of battle presents three great masses écheloned at unequal distances apart from each other; the most advanced portion alone is first engaged; the other two keep in readiness to support or to replace it.

The infantry essentially constitutes these three masses. How, therefore, should the artillery be disposed with regard to the infantry?

The artillery—thanks to its longer range—begins the engagement. Under its protection the columns of march can break. The artillery prepares attacks. These three motives fix the location of this arm in advance of the lines of infantry. Napoleon contended that the batteries should be posted as far as possible in advance of the troops, without, however, compromising them in the least. With the smooth-bore artillery of his time, the range of which was inconsiderable, this rule admitted of no exception; but now-a-days—thanks to the great range of our guns—the distance is of smaller consideration, and we ought, above all, to select a good position—a position favourable to fire, without, however, losing sight of the obligation not to hamper the troops, and taking care that the fire can be continued when the latter are engaged. It may be proper to observe here, that the curve of the trajectory of rifled guns, permits firing above troops of infantry without the least danger. But, whatever may be the position of the artillery—in advance on the flanks, or in rear of the lines of infantry—we have still to inquire whether we ought to mass the batteries or isolate them in action.

It is universally admitted that artillery should converge its fire on the points that must be battered. Indeed Napoleon said that the art consists in making the fire of a great number of guns converge upon one point; and in order to secure this result in his operations, he frequently contrived the concentration of a great number of pieces forming formidable batteries. The small range of his guns, indeed, made it difficult to converge the fire of isolated batteries upon a given point. Now-a-days, however, the great range of our rifled guns quite renders the thing possible and facile.

Such being the case, Colonel Lewal strongly advises the employment of artillery in isolated batteries on the extremities of the lines, and sometimes in the centre—these batteries converging their fire upon the point to be battered. He upholds his opinion with the following reasons:—

1. It is very essential that the artillery should shelter its front and cover, if possible, one of its flanks. These conditions can be secured by a battery occupying a space of 100 metres; but this becomes almost impossible with batteries spread over 500 metres.

2. The union of a great number of batteries reveals the project of attack to the enemy and we show him all the artillery we possess in that single battery, whereas disseminated batteries keep him in doubt and divide his attention.

3. The mobility of artillery is compromised by linking the batteries one to the other and compelling them to effect protracted evolutions. We deprive ourselves of the great advantage of suddenly flinging a battery on several different points as the opportunity may occur.

4. We can only batter the essential point except in one manner, and the enemy can more easily defile.

5. The union of several batteries constitute a large opening in the line of battle and, in fact, constitute a weak point in that direction.

For these reasons, Colonel Lewal contends that two divisionary batteries should be posted towards the extremities of the first line, and the third on the flank of the second line, ready to advance to the first. The batteries of reserve will be posted near the infantry reserve. He thus allows three batteries to the division.

Prince Hohenlohe, the Commandant of the Prussian Guard is of a contrary opinion. He contends for the combination of the four divisionary batteries, and his reasons are—greater rapidity in the regulation of fire and greater facility in the transmission of orders.

In the last war, the two systems were in presence. The Prussians always employed batteries at first composed of the twenty-four divisionary guns, to which they frequently joined their guns of reserve.

On the other hand, the French almost everywhere endeavoured to reply by means of isolated batteries or by batteries combined in twos; but in a short time these batteries were reduced to silence and replaced by two others which underwent the same lot, whereas the four, had they been combined and acted together, might have effectually resisted. Hence Captain de France prefers the Prussian system, whilst admitting the force of some of Colonel Lewal's arguments in favour of isolation. But he maintains that it is not necessary to link the batteries to each other and not require slow evolutions. These batteries can be combined and ought to be combined only in the moment of need. Until then they should be masked as much as possible, and remain in proximity to the corps to which they are attached.

The place of the artillery in the preparatory order of battle cannot therefore be determined in a precise manner; it may nevertheless be said that it should preferably be posted on the flanks, in order not to hamper the movements of the infantry.

And now with regard to the order in column, or order of march. The three principal parts into which a column may be divided are—the advanced guard, the body of the column, and the reserve.

The advanced guard, like the rear-guard, are solely destined to cover the movements of the corps of which they form part, and to stop the enemy until the Chief in command shall have time to make the necessary dispositions. This regulation imposes two duties on the advanced guard—to give intelligence to the chief corps and to conceal its movements, and finally, to stop the enemy. For these two functions the advanced guard should consist of two distinct parts—the 1st, light, and composed chiefly of cavalry, the 2nd solidly constituted in infantry and artillery. For the 1st there may be two regiments of cavalry with one horse-battery. The rôle of the second advanced guard is more important. It ought, in effect, to be able to drive back the advanced troops of the enemy, to seize

advantageous positions, and hold them until the bulk of the corps can come up. It should consist of one brigade of infantry with two divisionary batteries. These two batteries will march in rear of the first battalions or the first regiments of the corps of troops to which they are attached. Thus the reserve will be naturally formed as follows:—For a corps of two divisions, 1st, one brigade of infantry with its two batteries in rear of the first battalion; 2ndly, batteries of reserve and a brigade of cavalry. For a corps of three divisions, 1st one division of infantry with its four batteries in rear of the first regiment; 2ndly, batteries of reserve and a brigade of cavalry. The reserve furnishes the rear-guard.

It may appear from this that a very great proportion of the artillery is placed in reserve, apparently little in conformity with the importance of the function attributed to the arm at the commencement of an action. Prince Hohenlohe, whose dominating idea is the grouping of batteries, contends that the artillery reserve should march in rear of the 1st regiment or the 1st brigade of the bulk of the column. On the other hand, Captain De France is of opinion that the reserve batteries should not be engaged before the decisive moment, and when the bulk of the troop has got into line. Their post in rear of the bulk of the corps seems the best that can be devised.

Thus, then, we have brought our artillery into the field, and have now to discuss the tactical rules that should regulate the action of the arm in the various circumstances of war.

The general principles that regulate the employment of the artillery have not been altered since the introduction of rifled cannon into armies. As in the past, the artillery should begin the battle, sustain it and bring about the decisive result by closer fire. In order to fulfil this triple mission, the artillery should act in concert and remain in relation with the other arms.

Consequently, it is imperative that the artillery chiefs should be perfectly acquainted with the General-in-chief, and the object he has in view—so as to be able to second him efficaciously and with the utmost promptitude and decision. The superior commandant of the artillery should therefore remain near the General-in-chief, in order to secure always a complete community of views with him. The post of the commandants of the divisionary artillery is near the General commanding the division of which their batteries form part, and not to approach those batteries unless their presence be necessary; they should transmit their orders by intermediaries drawn from these batteries.

The artillery should not in general commence fire until it is in good range of the enemy, that is when it may hope to see the success of at least half of its shots. Distant cannonading should be carefully avoided; it produces little effect and causes a waste of ammunition. The artillery has always betrayed a tendency to fire at too great distances. Frederick II. stigmatised this failing in his

time. Blücher in an order of the day dated July 2, 1815, strongly recommended the Prussian artillery to avoid firing at too great distances. This serious fault was also committed during the campaign of 1866, when artillery combats often took place at distances from two thousand to three thousand metres and even beyond.

The artillery should discard distant action and confine itself to firing at distances at which the naked eye suffices to estimate the effects produced. This rule is specially applicable on the offensive; in the defensive positions it may be sometimes relaxed. In such positions the artillery will generally enjoy the most advantageous conditions for the exact estimation of the distances, and to establish points for aiming, as did the Austrians at Sadowa.

The distances comprised between 800 and 1800 metres are the most appropriate for rifled cannon; still the enemy's infantry should not be approached up to 800 metres unless it be already very much shaken.

In commencing fire the artillery should fire slowly, so as to be able to regulate it, and even when this has been accomplished, the fire should be sufficiently slow to permit the observation of the successive explosion of the shells—especially if the effects produced by the fire cannot be seen without much difficulty. The fire may be a little more rapid when the distance is inconsiderable, and the effects of the projectiles very perceptible; finally, at decisive moments the utmost rapidity of fire should be the rule.

In general, the artillery should fire upon infantry and cavalry—and avoid as much as possible all firing against the enemy's artillery. This abstention is often attended with excellent results. In the war of 1866, at the battle of Rosdorf, a Prussian battery of rifled artillery, fired upon the columns of Bavarian infantry on the march from Rosdorf to Wiesenthal not troubling itself at the fire directed against it by the enemy's artillery; it compelled the Bavarian division to beat a retreat.

Should the fire of the enemy's guns become too destructive, of course we must engage them to the best of our ability; and this was unfortunately too often if not generally the case with the French in the late war. The great numerical superiority of the Prussian artillery—a superiority especially due to their judicious employment of the arm—constantly led the French to enter into a struggle with their artillery at distances at which the German infantry could not be perceived.

It must be admitted, however, that the French too frequently played this sorry game of artillery combat—especially when the inferior range of their pieces is taken into account. If instead of remaining at 2,500 to 3,000 metres and beyond, at which the fire of their guns was little effective, the French had advanced up to 1,800 or 1,500 metres and even nearer to the enemy's lines, they would not have had to suffer much more, because they would still have been beyond the range of the Prussian rifle—but they would

have got sight of the enemy's infantry, which they always complained of not being able to see; the artillery would have been able to allow the skirmishers of the infantry to tackle with the enemy's batteries and pick off the gunners, reserving to itself its true function—firing upon troops. Nothing can be more erroneous than the opinion now current that battles should consist now-a-days in combats of artillery against artillery at distances of several thousands of yards. It cannot be too frequently repeated that the infantry is the queen of battle.

In further development of these very serious considerations, we proceed to quote a passage from the *Aide-mémoire* of the Prussian artillery.

“At the commencement of battle, cannonade the troops that must be shaken or dislodged, or those which for the moment, happen to be more menacing. At the end of the action, fire upon the decisive point. Fire against the enemy's infantry and cavalry should be preferred to fire against batteries—unless his artillery be not very good and his troops indifferent. In these cases, in order to avoid protracted cannonading and to secure the result with promptitude, concentrate the fire of several batteries against one hostile battery. Employ case-shot at 700 paces and in flank, both in attack and defence, chiefly against long columns defiling upon points or on main-roads.

“Against troops not deployed, use common shells up to 2,000 paces, and up to 3,000 paces against troops in masses and occupied villages.

“Shrapnells should be preferably employed, but never beyond 2,000 paces against columns; against deployed lines they should be used only at short distances. Against an object concealed from sight, employ plunging-fire from 600 to 2,000 paces.”

Captain De France's observations on this topic are much to the point. He says:—“In the war of 1870, we had, decidedly, to do with a very good hostile artillery—a case foreseen in the Prussian *Aide-mémoire*—and also with an infantry which—without possessing the dash and impetuosity of ours—was certainly not deficient in solidity. Moreover, our artillery could not hope to reduce the Prussian artillery to silence by the superiority of its fire; consequently it ought to have been directed—at all cost—against the Prussian infantry, and for that purpose to approach to a good distance. By doing otherwise, it infallibly followed that our batteries—after having succumbed in an unequal struggle—were utterly unable to act against the enemy's infantry and to shake it when the latter assumed the offensive under the protection of its victorious artillery.

With reference to the good conditions of an artillery position, we may observe that when a battery happens to be beyond the range of infantry fire, the commandant may choose his position with respect to the ground alone, but, at short distances, where the other

arms have an important part to play, the batteries should be posted so as to support those arms efficaciously without interfering with them in their action.

The commandant should carefully judge the favourable moment for leading a battery into action, and conceal it as much as possible in sheltered places, up to the time of its giving fire. As soon as this moment occurs, the battery should advance rapidly, and as much as possible in a deployed line, towards the position to be occupied; each piece will thus present a mobile object to the enemy's fire without being much exposed.

And now a word as to the supports. These are destined to ensure the security of the artillery on the march and during battle. They should render it independent, preserve it from the enemy's skirmishers, and ward off or prevent any attacks on the flanks or in rear. When a battery is sufficiently protected by the neighbouring troops the support becomes useless. The supports are composed of infantry or cavalry; a company or a squadron suffices to support a battery. Of course such troops must avoid exposing themselves to the enemy's fire by taking advantage of the configuration of the ground for shelter.

On the offensive the tactics of artillery are as follows. As soon as the advanced guard is engaged, the commandants of the divisionary batteries go forward to reconnoitre the ground with the minutest care, in order to be able to execute, with perfect information, the orders they receive from the commander of the divisionary artillery who, as we have said, posts himself with the general of division. Meanwhile, the batteries keep in proximity to the infantry, and covered as much as possible, up to the moment when they are required to act.

Cannonading at long distances must be avoided, and fire should be commenced at a good distance, 2,500 metres at most against troops in masses, and 1,800 metres against troops deployed. Besides, these distances must be kept only for the shortest possible time—the infantry having no action at them and yet suffering from the enemy's infantry and cavalry, in order to prepare the way for its own infantry. It will not engage the enemy's artillery unless the latter batters the ground to the extent of preventing the movements of the columns. In this case, it is preferable immediately to bring up the batteries of the reserve which, with the larger calibres of their pieces, will have a more powerful effect; they will engage in an artillery combat, whilst the divisionary batteries continue to act against the troops.

When the action becomes well developed and the general in chief has chosen his objective, it is upon this point that the artillery must converge all its fire. Should this converging fire be possible with the divisionary batteries disseminated along the front of the line, the latter should not be combined, for, by removing them from the

divisions they would be deprived of great succour in case the attack should fail.

The last wars, in which rifled artillery was employed, have demonstrated that large batteries are still in vogue. Thus, at the battle of Sadowa, the artillery prepared the offensive movement of the 1st Prussian army against the centre of the Austro-Saxon army by placing large batteries in action against Bistritz. Masses of artillery opened the battle of Sadowa in the great flank attack undertaken by the 2nd Prussian army under the orders of the Crown Prince, whilst the 1st Army and the Army of the Elbe kept the Austrians in front and on the left wing; 90 guns came into action on the heights of Hozonower. The difficulties which this artillery had to overcome were intensified by 100 Austrian guns ploughing up the ground with a shower of shells. Far from being intimidated by the fire of these pieces, the Prussian artillery concentrated its own upon the enemy's reserves which were in sight; it also vigorously supported the infantry, which sallied under its protection when on the point of giving way before the reiterated attacks of the Austrian reserves. This artillery cannonaded the columns of attack, both in front and in flank, with so much success that the latter were compelled to retreat in the greatest disorder.

In the last war the Prussians also made frequent use of large batteries.

At Reichshoffen, General Kirchbach, commandant of the 5th Army-Corps established on the east of Wörth about fourteen batteries (eighty-four guns) which fired upon that village from six o'clock to eleven o'clock, and then flung the 20th brigade in attack. In the Battle of Borny eighty-four guns were similarly combined upon the slopes on the north of Montoy. On the 18th of August, General Manstein of the 9th Prussian Corps, combined all the artillery of his corps (ninety-six guns) near Champennois. On the same day the Prussians converged upon the position of the 6th French Corps the fire of more than 200 guns, forming three great batteries.

The conclusion is that the employment of artillery in great masses, is very advantageous for the preparation of the attack upon the decisive point.

In the defensive, the artillery should be minutely acquainted with the ground and know the distance of the points which the enemy must necessarily occupy, in order to secure the greatest possible advantages from the utmost precision of fire. At Sadowa, the Austrian artillery had taken the distances of the field of battle, before the Prussian Army came up, and so its fire presented the most remarkable precision. The accidents of the ground should be turned to advantage for the shelter of the guns; indeed, in defensive battles, it may be sometimes useful to construct epaulments or at any rate to throw up earth-works adapted to cover the pieces and shelter the gunners. On the 31st of August, 1870, under Metz,

the batteries which were established in advance of Fort St. Julien were sheltered by epaulments, and they enabled the French artillery to resist that of the Prussians, although superior in number, posted in advance of Poix. Only the space of a few hours will suffice for the construction of the works here indicated, for they must not be of a nature to hinder the artillery in its defensive operations. Trenches each side of the pieces are very objectionable; they form a kind of shelter, which although insignificant, always tempts the gunners to resort to it too frequently.

When the fire of the enemy's artillery becomes preponderant, it must be opposed by the batteries of reserve, which should be posted, as far as possible, in such a manner as to take it *en rouage*. The same will be done against columns of attack, doing the utmost to take them in flank and in reverse, with the batteries of reserve, when they are near enough. Some pieces of horse-artillery, drawn from the reserve and flung at all hazards upon the flanks of the enemy—seconding their effort with the aid of cavalry—will always secure immense results in such defensive operations. As Jomini observes, the moral effect produced upon the troops by artillery taking them in reverse, is incalculable. Seldom will the most courageous soldiers be able to resist the effect without being astonished or shaken. The splendid turning movement of Marshal Ney upon Prelitz, at the battle of Bautzen, was neutralised by some light pieces from Kleist's Corps, which took the French columns in flank, stopped them, and compelled the Marshal to alter his excellent intention.

As on the offensive, so in the defensive, converging fire from large masses of artillery will give decisive results. This may not always be possible,—but to stop an offensive movement, there should be formed one or several large batteries with the divisionary batteries and those of the reserve. At Eylau, seventy-two Russian pieces opened fire suddenly upon Augereau's Corps, which was advancing, and reduced its effective to one-half in less than ten minutes. At the battle of the Moskowa, after the success of Ney and Davoust against the centre of the Russian Army, Kutusof tried to force the French centre, formed by Murat's cavalry. He was stopped by eighty guns which Sorbier directed in advance of that point.

When the enemy's troops continue to advance in spite of our artillery fire, and we are compelled to abandon our positions, the artillery must continue its fire to the last extremity, and, if necessary sacrifice itself for the salvation of the army. In such cases, masses of artillery are again very useful to protect the retreat. At Essling, it was under the protection of fifty guns which Napoleon posted in the elbow formed by the small arm of the Danube, opposite the island Lobau, that the French Army was enabled to retreat in good order.

When the infantry is charged by cavalry, the artillery is posted so as to cross its fire with that of the infantry. The limber, horses,

and caissons retire to the rear, and the gunners continue fire to the last moment, and then abandon their pieces for a moment—as did the British artillery at Waterloo. In front of their squares was a battery of sixty guns which fired to the last moment; then the fore-trains drew off with the battery reserves, and the men, with the equipments, rapidly took refuge in the squares.

The action of horse-artillery when combined with cavalry, is as follows. It must be observed that, at the present day, the cavalry should avoid more than ever getting into the sphere of fire. All combats of horse-artillery and cavalry should consequently be on the offensive—even should the battle be on the defensive. The time during which the artillery remains in action should be of short duration, and distant cannonading must be avoided. When the attack of cavalry is decided upon—the object being well determined—the horse-artillery advances to the distance where its action is most efficacious—1,200 or 1,500 metres—still remaining, however, as much as possible out of the range of artillery fire. The artillery should advance whilst the cavalry is still in column, or is on the move for the attack. It should not be deterred, by the fire of the enemy's artillery, from its object, which is to shake the infantry before it is charged by the cavalry.

Captain De France is of opinion that one of the batteries attached to each division should be a battery of mitrailleuses, which should be a horse-battery, instead of being a mounted battery, as at present. The action of the mitrailleuses is only momentary, and so their transport should be rendered as rapid as possible upon any given point, to fire a few volleys and then to retire to re-appear elsewhere.

Now, the cavalry should adopt an analogous rule of tactics; it therefore seems natural to combine these two arms. But, whatever may be the nature of the batteries attached to the cavalry, they must continue their fire against the infantry which is about to be charged, up to the moment when they are masked by the cavalry advancing. Should the charge succeed, the artillery, acting on its own initiative, endeavours to augment by its fire the rout of the enemy. Should the charge fail, it protects the retreat of the cavalry.

The employment of artillery in the attack and defence of villages is an important inquiry in modern times. Villages frequently serve, and now more than ever, as *points d'appui* to a line of battle, and it is almost always the capture of villages occupied by the enemy that decides victory.

To defend a village, the batteries are posted on the right or left, in order to take the columns of attack in flank; batteries are also posted at the entrance of the principal streets, in rear of earth-epaulments. Should the tactical importance of the village be very great, the defence must be pushed to the last extremity, and the greater part of the artillery destined for the defence must be posted on the *enceinte* itself, masked as much as possible by hedges and

enclosures. In rear of the village, there will be in reserve sufficient artillery to oppose all turning movements and prevent the enemy from debouching from the village should he contrive to hold it.

In the attack of a village, the object of the artillery should be to silence the fire of the enemy's artillery, to free the entrances of the village by destroying the barricades and neighbouring houses, walls of enclosure, in a word, all the shelter in the vicinity.

Then follows the employment of plunging fire, in order to render untenable the heart itself of the village, and the fire should be concentrated upon the points towards which the columns of attack will be directed. Finally, action must be engaged with the batteries of the defence established on the flanks; for, until the latter have been forced to retreat, the occupation of the village will not be definitive.

If, in strictness, a village can be defended by solid infantry without the concurrence of the artillery, the latter is indispensable in preparing the attack. The farm of La Haie-Sainte at Waterloo, the attack of which was so murderous to Quiot's brigade, would not have so long arrested the French if there had been artillery action. On the eve of the battle of Wagram, the village of Enzersdorf which had been sharply cannonaded by the batteries from the island of Lobau, was carried without difficulty. On the following day, the villages of Neusiedel, Aderklaa, and Wagram could only be carried by the aid of a numerous artillery.

During the Austro-Prussian War of 1866, artillery played a great part in the attack of villages; eight mounted batteries and two horse batteries of the 5th Prussian Corps prepared the attack of the village of Skalitz, and pursued the Austrians after capture of the village. Many other examples might be given. In the late war, also, the Artillery played a still more considerable part in the attack of villages—as at Saint-Privat, where the Prussians concentrated, as before mentioned, the fire of 200 guns.

In the attack of positions the object of the Artillery should be to silence that of the enemy, and to destroy his works. The salients being the weakest points, should be the points of attack. Plunging fire is chiefly applicable in the attack of intrenched positions.

In the defence of a defile, we must avoid posting our artillery in advance, for then retreat might be difficult, if not impossible. Its fire should be crossed upon the defile, and adapted to batter it along the length. Horse-batteries must be held in reserve, to oppose all turning movements, should they be apprehended. As soon as the defile is taken, the first battalions are followed by a few light pieces, which take up position as rapidly as possible at the outlet of the defile, and preferably on the sides, in order to cross their fire in front. The remaining batteries do not pass the defile until the position is completely carried and solidly established.

In the passage of a river, the artillery protects the establishment of the bridges, by crossing the fire of its batteries upon the opposite

bank. When the bridges are finished, a few light pieces cross over with the first columns, for the protection of the epaulements. It is very difficult to oppose the construction of bridges when the assailant has well taken his measures.

In retreat, the artillery is solidly established on the bank on the enemy's side, to protect the passage of the river, and its pieces of position do not retire until the entire army has defiled.

Thus, in conclusion, in all the circumstances of a campaign—in the defensive as in the offensive—in the attack and defence of villages and intrenched positions, the artillery plays a great and most important part. The great range of modern guns has not materially modified the method of employing this arm; for it is only in rare and exceptional cases that this great range should be utilised. We may establish, as an almost general principle, that the artillery should take up position beyond the efficacious radius of the enemy's infantry fire. Beyond that limit, the choice of position depends chiefly on the ground, and it should be selected as near as possible to the troops which it has to fire at.

Whatever, indeed, may be the improvement of war-engines, two armies encountering, and desirous of battle, could not continue firing all day at each other with small arms and artillery. One of the two must necessarily advance to attack the other. It is, therefore, useless to wait for the execution of this movement in advance, until the fire at great distances from the enemy's artillery shall have caused great ravage and demoralization in our troops, and especially our infantry, which, at these distances, can do nothing. As soon as the plan of battle is settled and the dispositions taken, the artillery should advance and take position at a distance where its fire can secure all its efficacy. It will scarcely suffer more from the fire of artillery than at a greater distance, and in all cases it will suffer for a shorter time. It will be closely followed by the infantry, which, from the first, will send out skirmishers, whose chief objective will be the enemy's batteries. When the divisionary artillery, strongly aided by the fire of the skirmishers, shall have engaged action, and have enabled the General-in-Chief to judge the weak points of the enemy and fix upon the point of attack, it will concentrate upon these points the fire of its artillery of reserve; to which will be added, if required, its divisionary batteries; and, as soon as the enemy is shaken, the infantry will lead forward to secure victory.

It may, therefore, be affirmed that success will depend, as of old, on the most skilful manœuvring, by always conforming to the immutable principle of tactics, which consists in flinging the mass of our troops upon the point of the field of battle, the possession of which will decide the victory—by making all the three arms concur simultaneously in the attack.

THE NAVAL COLLEGE AT GREENWICH.

The question of the higher education of naval officers has passed, at length, out of the region of controversy, and found a settlement in the opening of the new Naval College at Greenwich. No one will, perhaps, ever know the difficulties, delays, opposition, jealousies, and petty influences which have been permitted to surround this question. And we doubt whether any will ever be able to tell us, either now or in time to come, how far this new establishment for Naval Education is due to pure political considerations, and how far to a pure desire to benefit the Service. The establishment of the new Naval College is, unquestionably, due to the existence of the old Royal Hospital at Greenwich, and the application of this building—to its present purpose—is as unquestionably due to the fact that the Prime Minister is member for Greenwich. While local influences on all sides were agitating the question, whether Greenwich or Portsmouth, was best fitted for a Naval College; while professional men argued the matter out in their own special way; and, while scientific men discussed the question on grounds, more or less theoretical, or from a purely abstract point of view; it was impossible to doubt, when Mr. Gladstone, in his memorable speech at Blackheath, assured his hearers and constituents that the old, untenanted walls of Greenwich Hospital should be again filled, and that the noble building, at once a national monument and local institution, should be applied to purposes worthy of the nation and acceptable to Greenwich, that the Government had at last determined to found there a Naval College.

Since this decision was arrived at no pains have been spared to secure the success of the undertaking. Money, liberally voted by Parliament, has been freely spent, and, we may say, spent well. No easy task was it to transform the large block of buildings which had hitherto been used as dwelling places and dormitories for naval officers and old pensioners, into class rooms, lecture rooms and dwelling places for the new comers. Indeed, it was freely asserted at first, that it would be impossible to carry out the task with any chance of success; that it was throwing money away to attempt such an unnatural conversion; that it would be better to hand over the building bodily to a technical University for artizans and mechanics, or to make a small-pox hospital of it, or to turn it into a general infirmary for seamen of all classes, in connection with a medical college for the benefit of naval medical students, and build a new college, at Portsmouth, or elsewhere. Of course, it is needless to point out that all these suggestions, admirable as they were, even if they did not carry conviction, proceeded from interested motives. Portsmouth was interested to keep the College where it was; and, especially if it could benefit, in any way, whether

directly or indirectly, by a large building contract; and various societies, whether medical, philanthropic or scientific, were interested to obtain such magnificent accommodation as the old Hospital could afford; while Greenwich was, on the whole, profoundly indifferent who had the Hospital, so that it was well filled, and with customers likely to improve trade.

But, in spite of much croaking and many difficulties, the task has been accomplished in a way which is worthy of commendation to all concerned. Colonel Clarke has devoted much skill and trouble to carry out the general plan and the details of the conversion, and has the satisfaction not only of knowing, now, that the difficulties, which seemed at first insuperable and overwhelming, have disappeared; but also the reward of knowing that a possible failure has been turned into an absolute success. It is possible now to go over roomy class-rooms nicely furnished, and with every appliance for study; what used to be the council room is now a recreation-room for officers; and what was once one of the pensioners' dining-rooms, is now a comfortable mess-room. Indeed, the old place, which has looked gloomy and bed-ridden for the last five years, seems suddenly to have taken a new lease of life, and looks brighter, even at this time of the year, than it has looked for many a long day.

So far as the choice of a place for a Naval College is concerned, it may be admitted, now that the question has been definitely settled, that Portsmouth has the advantage. There are few naval officers who, if consulted, would not unhesitatingly give Portsmouth the preference; while those who advocate the removal to Greenwich qualify their opinion by conditions which concede much to Portsmouth. But it will readily be admitted by the majority, that if Portsmouth were the best place, it would be absolutely necessary to erect a new building there; and that, to carry out such a scheme as has become necessary for the proper education of naval officers, Greenwich is far superior to Portsmouth, and the disadvantage not so overpowering as the advantages.

We believe that objections may, even still, be heard against any more education being wanted; but they are spoken, if they exist, in the still small voice of timid ignorance, or senile imbecility; and they have had no influence in shaping the destinies of the new College, or of framing the new regulations which have now come into operation. The old tribe of admirals, whose glory was to curse science, and sneer at scientific men; or to regard science as an art which only required an officer to be of sufficient rank, and to carry the proper number of stripes, to be mastered; or to regard it as their special mission to air, with a tone of dogmatism, scientific fallacies which had been long since exploded; and to consider scientific instruction as recreation, injurious, on the whole, to the professional career of a naval officer, but as a pleasant and desirable way of assisting an officer on the retired list, to eke out the time

heavy on his hands, and of adding, as an additional stripe or burton might, to the dignity of an officer of sufficiently high rank and position. No sign of this in the establishment at Greenwich is in any way evident; and every safeguard seems to have been taken to prevent the smallest chance of the scientific institution at the College being tampered with, or its integrity imperilled. In Admiral Key the Government and the Service have a guarantee that a very high standard will be preserved; and every officer who wishes to study will feel the assurance that in him he has a friend who can sympathise with his desire for instruction, and will do his best to gratify it, and advance his interests.

Some time must necessarily elapse before all the objects, which the Admiralty propose to effect, can be accomplished. The range of studies to be directed, and the varied course of lectures to be provided, are not more extensive than the classes of officers they are intended to reach and assist. To begin with, lectures and classrooms are to be provided for pure mathematics, including branches which we not only need not enumerate here, but which we should only worry, and perhaps horrify our readers, by recapitulating; applied mathematics, including instruction of a practical nature, which, without a considerable amount of scientific study, is simply useless to the most ardent and determined student; then nautical astronomy, surveying, meteorology, and subjects more akin to naval life; then more science, and of a character which is, in its general utility, but too little appreciated and known in the present day, including as it does a knowledge of the source and power of sound, heat, light, electricity and magnetism, chemistry, and metallurgy; then subjects which will be congenial to naval men, including the study of marine engineering and naval architecture in *all* their branches, with no skimming of the rind, no mere biting at the outer crust; then follow fortification, military drawing and naval artillery, international law with the laws of evidence, as applicable to courts martial; then something light and cheerful in the shape of naval history and tactics, suggestive of light reading, aided by the glowing walls of the Painted Hall and plenty of outdoor work; and, lastly, to conclude this sufficiently terrible list, modern languages, suggesting possible trips to Paris, and peeps at the Vienna Exhibition, drawing and hygiene, whatever they may be meant to include. This list is comprehensive enough to satisfy the rapacious hunger of the most voracious of scientific, and intellectual gluttons; pleasant to the eye and not harsh to the palate of a vigorous scholar; but a little, possibly, just a little, terrible to the eye of an enterprising midshipman, escaped from his first long cruise, or of an aspiring lieutenant pining in the cold shadow of half pay, and yearning with the earnest throes of ambition for a higher place in the ranks of the service and the history of his country. So far, however, from being a fault, we are inclined to regard the very comprehensive character of this scheme as a step in

the right direction. And, talking about steps, we know, after all, that the *premier pas* may cost much, but it also counts more. As plain but hospitable hosts used to remark, "you see your dinner before you;" and, in truth, this is a pretty dinner. But, such a dinner as this, should be '*à la Russe*;' and, according to modern ideas, we should not see it all before us. However, with only the Order in Council as a guide, we are, so to speak, admitted to a private view—in the kitchen; and are, therefore, only in the position of the cook's friend, or the coachman of one of the guests, allowed to see what the guests are to partake of, at leisure, without being invited to partake.

For, after all, overpowering as this scheme seems at first sight, it is intended to apply to all classes of officers, each choosing for itself what is most palatable. Indeed, the key to this course must be found in the remarkable variety of officers who are to benefit by the fare provided by the Admiralty. To begin with, we have captains, commanders, lieutenants, navigating officers, naval instructors, marine officers, and engineers, who will be permitted the indulgence of voluntary study; each class, if not each officer, having the choice of those branches of study which are specially applicable, either for advancement in the service, or for the purposes of private culture. Then follow acting lieutenants and acting sub-lieutenants, who must make up their minds for hard study in well-defined subjects and stiff examinations, if they wish to have their appointments confirmed, or expect promotion. Then engineers will have the privilege of studying, with peculiar advantages, the special work of their class. Midshipmen and naval cadets are excluded. The system, at present in force, which provides for a preliminary course of study in the '*Britannia*,' and a more professional course of instruction during their first cruise will still be maintained in its integrity; and there is, we believe, no present intention of interfering with one or the other. But one of the special features of the new college is the inducement it offers to those who are not in the recognized ranks of the Naval Service. This new establishment will open its doors to a limited number of dockyard apprentices, who will be allowed to study at Greenwich, after having passed the ordeal of a competitive examination; and, as a consequence, the school of Naval Architecture at Kensington, where they have hitherto studied, will be transferred, bodily, to Greenwich. Lastly, the Admiralty have determined to allow those who have no direct claims upon them at all, to benefit by the College; and they will admit a limited number of private students of naval architecture and marine engineering, and officers of the mercantile marine, for the purposes of private study.

Thus it is manifest the Admiralty have wisely determined to deal with this important matter in no niggardly spirit. If they have not spared expense, and have relied on the unanimous support of Parliament and the country, they have descended from the lofty

pedestal they have, too often, been reproached with hugging; they have thrown aside the studied exclusiveness in which they have been too often shrouded; and have determined that this institution shall not only benefit the service, but have an unmistakably national value.

A word or two about the professors will not be out of place. For the purely professional subjects of study there will be no difficulty in obtaining suitable instruction. There are many officers to choose from, and many who are not only willing, but capable; and not only capable, but have earned a title to consideration by their devotion to the acquisition of professional knowledge during many years of neglect, discouragement, and a want of the proper opportunities of study. What means have been offered them have been found at Portsmouth, and what encouragement they have obtained has come only from the earnest work of a little band at the old college. For, after all, the old college, with all its faults, which consisted chiefly of a want of room and of appliances, has been ever ready to hold out a willing hand to the earnest student, and has done much to start many an officer on the difficult path of self-culture. We do not wonder at the regret with which so many officers regard the disestablishment of the Naval College at Portsmouth; for it has been the home and the cheerful assistant to many an officer who wished to advance himself in the knowledge of subjects relating to his profession.

At Greenwich the same advantage will be given, but on a more extensive scale; and the Admiralty, in defining its objects, properly state that "the paramount object which my Lords have pursued in the organisation of the college has been to provide the most efficient means for the higher education of officers adequate to the constantly increasing requirements of the service; but my Lords also anticipate great advantages from the results likely to accrue from the connection which will be established through the college between men distinguished in the various departments of mathematics, physical and chemical science, and those practical problems which so vitally interest the navigator, the naval architect, and the naval engineer."

Such are the principles on which the Board of Admiralty intend conducting the education of our future Lord Nelsons and Lord Collingwoods; and it is gratifying to find that their Lordships have determined, at last, to educate the officers of the Royal Navy in the true sense of the word. The Order in Council laid before Parliament proves clearly that the intention of the Government is not only to follow in the footsteps of foreign naval universities, but, if possible, to vie with and surpass them. In this resolution we sincerely wish them all success; a success which shall be immediate, and not earned, ultimately, by the sad experience of repeated failures which, with a kind of fatality, have hitherto attended most efforts at reform for many years past. Nor is there any reason why this should not

be the case ; but it must be at the cost, for once, of foregoing the temptation to a short-sighted economy, and of sparing no expense in obtaining the best professors and lecturers, and every appliance necessary for carrying out so large and important a scheme.

On the whole we are inclined to consider the Government fortunate in selecting Greenwich Hospital as the head quarters of naval education.

In the old times, when an officer after six or seven years hard service, had spent two or three months at the college, at Portsmouth, in study, he would afterwards look back to that time with a sense of having there enjoyed the highest earthly felicity ; and some officers would indeed pay any price, and would even get purposely plucked at their examination, in order to enjoy another month of what was considered little short of Elysium. The result was that the Admiralty used to be inundated with applications of half-pay officers for berths in the college on some pretext or other. With this experience, it has been wisely determined that the College at Greenwich shall not be a university in the strict sense of the term for educational purposes alone, but shall be in addition a kind of sailor's home for officers of all ranks during their periods of residence on shore, when on half-pay, or while waiting for appointments afloat. This, we are convinced, is a much healthier plan than that hitherto adopted, under which officers were either sent on half-pay, to lose the knowledge of their profession as fast as they had acquired it, and feel themselves comparatively useless, when, after some lapse of time, they managed, by wheedling and coaxing, and often back-stairs climbing, to obtain an appointment to a sea-going ship ; or else were placed on board a harbour-ship to spend their days in listless idleness and inactivity.

What better prospect, under this new system, can a young officer have before him, after the hardships of a four years' commission, than to take up his rooms and comfortable quarters at the college, join a mess consisting of gentlemen of his own profession, with whom he can converse on topics of no possible interest to his shore-going acquaintances, and in a lingo they could not understand ; and, at the same time, be following up branches of study relating to his profession, both interesting in themselves, and tending, if he be studious, to advance his interests and promotion ?

We have already remarked that as far as is contemplated, at present, the college is meant only to contain officers above the rank of midshipmen, the cadets, as heretofore, being drafted on board the training ship 'Britannia,' as soon as they have passed their examination for entry into the service at the University. It might occur to some of our readers to ask why these young gentlemen should not be trained at the University as well as their superiors, since there could be no difficulty in mooring a training-ship in the Thames opposite the college, for the purpose of instructing them in the practical parts of their profession, such as handling sails and

spars, gun drill, &c.; but no doubt their Lordships have very good reasons for adopting the course they propose, which is probably that, owing to the strict discipline required in the naval service, and the great gulf there must necessarily be between the commissioned and subordinate officers, it would be unadvisable, in order to maintain that discipline, that the latter should commence their career in too close contact and familiarity with their superior officers; especially when those officers would desire to lay aside for the time their strict service manner and bearing, and accordingly would not inspire the youngsters with that awe, which should be imbued into their very nature from their earliest apprenticeship.

Not longer than 15 years ago the standard naval officer was as ignorant, except as to his profession, as any ordinary artisan; and his ignorance extended even to his professional knowledge in those parts which did not immediately concern him; for instance, a lieutenant would know next to nothing of navigation, pilotage, ocean currents, trade winds, and surveying, because those branches of nautical science were, and have been from time immemorial, entrusted to a class of officers who used to be called masters, but who are now dignified by the title of staff-commanders. We hope the time is not far distant when, as a separate class, they will cease to exist altogether; for we are on the side of those who think that there is no more need of two classes of officers in the executive of the naval service than there is of two classes of lawyers, barristers, and solicitors.

Lieutenants certainly had to pass an examination in navigation and the three R's before they were qualified for their commissions; but the examination was conducted more with an eye to get the men through than to test their knowledge; and the modicum of learning which was exacted was of a mechanical nature, hardly requiring from the student more perhaps than the ability to work a lunar according to certain formulæ laid down for him, but without demanding from him the slightest notion of astronomy to guide him to the reason of his rules.

During the last twelve years, however, this has not been the case. Mr. Main, the Professor of the Naval College at Portsmouth, was permitted, after repeated requests to put his pupils and examiners through a course, which has been the means of bringing forward a class of officers in the Navy infinitely superior to those of former days; and to his work may be traced indirectly the notion of sending out the 'Challenger' on her present scientific expedition, which is in perfect harmony with the system of education about to be adopted.

Such is the history of naval education up to the present date; for the future however, the Board of Admiralty purpose to have their officers instructed, not only in every branch immediately connected with their profession, but also in other useful branches of learning.

In fact, this system, at first sight, seems too wide and varied; for what an intimate knowledge of chemistry and maritime law for one thing can avail a seaman it is difficult to see, unless, indeed, as to the latter, they purpose to themselves supplanting the pleaders in the Admiralty Court by their own men duly qualified for the Bar, and conducting courts-martial and courts of inquiry with regularly constituted judges and justices of the peace, in place of admirals and post-captains.

It would be out of place, at present, to criticise too minutely a set of rules framed with the object of expressing a future intention rather than a present mode of action. Rome was not built in a day; and many days must pass, and much clipping and revising of the instructions must take place before a system, which their Lordships have firmly resolved shall take the lead of the educational system of all the navies of the world, shall have reached perfection.

In the meantime, we can foresee and predict as great a change in the character and habits of the future naval officer as there has been of late years in the nature of the ships of war which defend our coasts. Instead of the reckless, careless old sea-dog we read of in Marryat's novels, swearing immoderately, and drinking quantities of grog proportionate to the amount of hasty pudding Jack the Giant Killer is reported to have consumed, we shall at no very distant period see a refined, well-informed, well-educated gentleman, who has by no means, for that reason, lost those habits we expect to meet with in men sworn to protect their Queen and fellow-countrymen from foreign foes, and who will be as capable as their ancestors of bearing exposure to those dangers and risks which British sailors alone know how to cope with. They will still be distinguished throughout every quarter of the globe for their energy and intrepidity, and that disposition they have evinced, ever since a British Navy existed—of never meeting with a difficulty without an ardent desire to overcome it. A new class of men will spring up, who, retiring from active employment for various reasons, will devote their lives to promoting and advancing the interests of science, outrivalling our Aireys, Sedgwicks and Huggins, who, if they had lived in years gone by, would have been condemned either to sit down for the rest of their lives with nothing to do but grumble against their profession and its rulers, or compelled to supplement the income derived from their pensions by engaging in mean employments unbecoming the dignity of an officer and a gentleman.

There are some people who deplore these changes as tending to render obsolete the seaman of former days, not only the seaman amongst the officers, but also amongst the men; for the education of the common sailors of the Royal Navy has been making, and will make, as rapid strides as that of their superiors in rank; but it should be brought to mind that seamanship is not so much a *sine*

quâ non as in Nelson's time, when the success of an engagement depended entirely upon the manner in which the sails were handled.

A captain of a modern ironclad should be an engineer and gunner, and acquainted with naval tactics, in preference to being a seaman.

The best seaman in the world could not have prevented the 'Northumberland' from fouling the 'Hercules' a few weeks ago; the stranding of the 'Agincourt,' or the loss of the 'Captain,' although in the case of the last disaster, it was remarkable that when she foundered, not a single rope or sail was let go or cut away, which, as there was plenty of time before she gave her final roll over, should have been the first thing thought of.

Our first-rates of the present day are as unmanageable as timber logs, unless they have their steam full on, with plenty of way and sea room to manœuvre in, for do not we read sometimes in the papers of those enormous troop-ships, such as the 'Jumna' and 'Serapis,' running foul of every craft in the harbour, and butting against the jetty they wish to lay alongside, causing several pounds worth of damage before they succeed in taking up their berth. These misadventures are attributed either to the want of seamanship on the part of those who have the management of them, or to the peculiar state of the tides and under-currents at the time; whereas the true cause lies in their not being able to answer their helm by reason of their huge bulk.

By giving our naval officer then a sound education, we have everything to gain, and little to lose, and more and more as time goes on and science advances, will this become apparent. The new system has not commenced one day too early, insomuch as there are many officers, at the present moment in the Navy, whose progress has been maintained by their own unaided efforts, and is sufficiently advanced to render them capable of availing themselves to the full of the splendid advantages thereby offered them.

We honestly wish the Admiralty success; we hope the country may reap the fruits of this enterprise free from the disappointments and discouragement which too constantly attend even the best and most carefully considered reforms, and that not before many years have passed by. We earnestly trust, too, that the service will heartily welcome this change as beneficial to itself, support the authorities in a way which will convince them that their labours will meet with quick reward, and satisfy the country that the money which has been voted ungrudgingly, has been well bestowed.

MILITIA REFORM.

There is much yet to be done before the Militia Service can be made as effective as it ought to be, and although some slight improvements have been introduced of late years, there still remains much to be effected, especially in the large number of apparently trifling subjects, which are consequently more likely to be overlooked. One of the greatest objections raised against Military Reform is the cost; but in the subjects which will now be briefly noticed the expense is in most cases nil; a stroke of the pen in many cases would suffice to carry the changes into effect.

1. THE STATUTES RELATING TO THE MILITIA.—The Militia Acts are to the Militia what the Mutiny Act is to the Army; but where in the former case the law is condensed within reasonable limits, in the latter it is scattered through such a large number of different acts extending back for more than half a century, that it is almost impossible to tell what remains in force, and what has been repealed or amended. For example, there are separate acts for England, Scotland, and Ireland; those at present in force for the two former, date from the year 1802, and the latter 1809. Since the year 1852, upwards of *twenty-four* Militia acts have been passed, or at the rate of one a year! The greater number of these are "Militia Law Amendment Acts," which repeal numerous clauses in previous acts, and add many new ones; then follow numerous short acts on special subjects, such as the Ballot Suspension Act; an Act to allow the Militia to serve abroad; to embody the Militia; pay and clothing acts, &c. With a little trouble all these might be embodied into one act, or published in a collected form, which would make them of some value; but at present, for all practical purposes they are entirely useless.

2. THE MILITIA REGULATIONS.—These closely resemble the Militia acts (upon which authority alone they are framed) in their arrangement. The first issued were dated July 15, 1853, and are superior both as regards size, and the amount of information they contain to those now issued. Then came the Regulations of June, 1841, which were again enlarged by a very useful circular, dated April, 1866, the Reserve Force circulars of 1870, 1871, and the Auxiliary Force Circulars and Militia Orders of 1872. In addition to all these there are a large number of small circulars issued during the last eighteen years, most of which have never been cancelled or incorporated into later editions; others have been partially cancelled, or reproduced in subsequent orders. Now, if each succeeding issue of circulars or orders were simply revised or enlarged as occasion required, there would be no cause for complaint; but as each circular or order cancels a portion of some previous one, reproduces a portion of another, besides adding a

few new paragraphs, they become too complicated to be readily understood. Only one copy is supplied to each regiment, and as most of the circulars merely consist of a page or two of thin paper, they have in many cases long since been lost, or become so dilapidated as not to be readable. The last few issues have been divided into clauses, one being devoted to each subject, the paragraph in each being numbered separately. This arrangement makes it very inconvenient for reference; the system of "sections," with paragraphs numbered consecutively throughout, would be far preferable. With so many difficulties to contend with, how can officers be expected to render themselves acquainted with them? Copies are sent to the daily press, but officers cannot even purchase them (with the exception of the last edition), as they are not published!

3. *BALLOT versus BOUNTY.* There is no doubt that the voluntary system of enlisting, especially in theory, is far superior to any kind of compulsory service. But when it has to be supplemented with high bounties, it is no longer a voluntary, but a mercenary force, and therefore loses much of its advantages. The only alternative in this country is the ballot, which appears to be looked upon with great aversion for this particular purpose, although an old national resource to which recourse has often been made with success.* Amongst the younger portion of our population liable for service, the prospect of a short period of service in the Militia is not unpopular; in fact, in the manufacturing and mining districts, where high wages are paid, men often join for the sake of a holiday and change, although at a considerable loss. The reason why eligible men are so difficult to obtain is that the majority of those with any kind of settled employment (and therefore the most desirable) fear they would lose it by being called out for a month every year. It is the employers alone who dislike the system in any shape, and do all in their power to throw obstacles in the way of men joining, by refusing to engage Militiamen, or dismissing those who join on the first opportunity. The ballot need only be resorted to in order to complete the quota when the number of volunteers are below the required number; the percentage of the population required would be so small that it could never be a burden or a tax on labour. Not only would the men obtained be of a far superior class in every respect, but it would also have the effect in a great measure of filling up the present large number of vacancies—nearly one-third—in the commissioned ranks. The annual saving in bounty alone would be upwards of £120,000. The law is ready made, and only suspended, and it is to be hoped that it very soon may have a fair trial.

4. *RECRUITS.*—The present system of recruiting through high

* The ballot seems likely to be resorted to in Canada, where most of the officers are strongly in favour of it. In this case, as in many others, the Canadians will probably first set us the example. See Report on the State of the Canadian Militia presented to the Canadian Parliament, 1871.

bounties, by which a man can obtain (with the Militia Reserve) upwards of £10 for seven or eight months' service, whilst a man who enlists in the Regular Army for twelve years gets nothing, is no less expensive than unsatisfactory. In the first place the present class of recruits are very inferior to those who were obtained ten or fifteen years ago; secondly, the number of desertions would astonish many people as much as the number lately reported to have deserted from the Army. Hundreds enlist for the sake of the ten shillings paid on attestation, and are never heard of afterwards. The Militia at the present time is much below its strength.* What with desertions, the Militia Reserve, and the numbers who are entered into the Army,† the efficiency of the service is, consequently, not what it should, and might be. At the Preliminary Drill especially it has become the custom to send one or two recruiting sergeants, who naturally do their best to obtain some of the most promising men, and often with success. The recruits obtained in this manner may be numbered by hundreds annually, and in some cases by thousands. In the year 1864, 3,016 were transferred to the Army (Report of Recruiting Commissioners, 1866, para. 1,955; also Appendix F, page 223). Instead of the Militia being subject to a constant drain, it should be counter-balanced by an equal or greater number of men being transferred from the Army, to serve two years for one, until their term of service had expired. This was recommended by the Royal Commissioners on Recruiting, in their Report dated Oct. 31, 1866 (page 13), but has not yet met with the notice it deserves.

5. COUNTY QUOTA.—Since the Militia was first organised in 1757 (General Militia); the quota has frequently been revised, viz., in 1786, 1796 (Supplementary Militia), 1801, 1802, 1809 (Local Militia), and the General Militia of 1852. At the present time the population has increased to such an extent, especially in some of the manufacturing districts, that the number no longer represents a fair proportion of the population available for service, and the numbers, therefore, require more than ever to be readjusted. Before so doing, the number of men we could possibly require, under almost any circumstances, should be definitely settled. The present peace establishment of 120,000 represents the full regimental establishment of the Service, and, therefore, should occasion arise to require the services of the 60,000 additional men authorized to be raised in case of war, the number would first have to be proportioned amongst the various counties (which has never yet been done); and then either new regiments would have to be formed, or else the county character of the force obliterated by drafting the extra men into the small corps, of which there are several consisting of two to six companies, so as to bring the numbers up to the large regiments, but even this alone would not be sufficient to absorb the whole

* About 40,000!

† For the year 1872 these numbered 4,392 men.

number. In redistributing the quota, advantage might be taken to equalize the establishment of all regiments, and in the few counties where the numbers are so small as to render this impracticable; as, for instance, in Wales two or more might be amalgamated like some of the Scotch regiments.

This method has received the approval of several officers connected with the Welch corps several years ago, in giving evidence before the Commission appointed to inquire into the establishment, &c., of the Militia in 1859 (para. 6,606-6,644), and 2,232, 2,259-2,271); and also in the reply to the "Questions sent to Commanding Officers of Militia Regiments," in November, 1870, almost all the commanding officers of the Welch corps replied in the affirmative to the question whether a second battalion could be raised.

6. THE JERSEY AND GUERNSEY MILITIA.—The so-called Militia belonging to the Channel Islands is another example of one of the many different constitutions of our Reserve Forces. The term Militia in this case is quite misapplied, as they have no connection whatever with the rest of that force in the other parts of the United Kingdom, and resemble more the Volunteer Force in their organization. Why should they not be placed on the same footing as the rest of the Militia?

7. REGIMENTAL SENIORITY NUMBERS.—There is much trouble and difficulty in distinguishing Militia regiments from each other, especially when assembled in large numbers as at Aldershot, or the Autumn Manœuvres. This might easily be avoided if the regiment were known by their seniority numbers, and had them marked on the shoulder straps, as in the Line.

The County numbers could be retained as a second title; for instance, the 19th Foot is the 1st North York Regiment, the 65th Foot the 2nd North York; the 64th is the 2nd Stafford; and the 59th, the 2nd Nottingham. As it has always been considered necessary for the Militia to have a fixed order of precedence as the Line, the numbers should be made use of in the proper way; whereas we find that even in official publications, such as the London Gazette and the Army List, they are totally ignored, the regiments being arranged alphabetically according to the counties.

8. ANNUAL TRAINING.—The annual training being always at uncertain dates, causes great inconvenience both to officers and men. If the regiments were always assembled on the same day, or the date of assembly for the next training fixed before the men were dismissed, it would be most advantageous in many ways. It would save much trouble and expense in sending the notice by post, a large number of which are invariably returned, marked "not to be found," in consequence of the men changing their abode without writing to inform the Adjutant, which very few ever take the trouble to do, one reason, perhaps, being that many cannot write. It would also considerably reduce the number of

absentees, more especially if all the regiments in one district were called up simultaneously, as it would thus prevent double enrolment. The printing and postage of these notices, together with the placards which are always posted up over the district, which would thus be saved, are at present a heavy drain on the stock purse, out of which all contingencies are expected to be provided for, the amount granted for the same being only sixpence per man, or £25 per annum for a regiment of ten companies, of 1000 rank and file. This allowance is totally inadequate to meet all the various charges which are made against it. A Volunteer Corps, which has not nearly so many claims to meet, receives £4 per company; and a regiment, therefore, of ten companies, with probably only 600 or 800 men, receives £40 per annum.

9. SCHOOLS OF INSTRUCTION.—These schools which were established some three years ago, have doubtless wrought a great change for the better, but they are not made nearly so useful as they might be, if more inducements to join them were held out. Many officers, especially those who have been embodied, or in the army, object to go through a course, considering that a certificate in which they are classed with subalterns and sergeants of Volunteers is not worth having. The latter, it may be remarked, are far more numerous than is generally supposed. Out of 162 regiments, all but sixteen have been embodied for periods varying from one to six years. Two of the regiments, not embodied, have never even been raised, and the remaining fourteen are nearly all very small corps. It would be far more satisfactory, and also more popular if the subjects required in examinations for promotion, were added to the certificates, and to have Extra First, First and Second class certificates according to the subjects, and the amount of proficiency displayed. This, of course, would necessitate separate schools for the Militia, but the certificates being more difficult to obtain, and requiring higher qualifications, would be more highly valued. Officers should be required to pass the examination for the rank above them, and the class of certificate they hold notified in the Army List.* The number of officers who undergo a course of instruction would be largely increased if they were allowed the pay of their rank, during the period they were so engaged towards defraying their expenses, which are always more or less heavy. Then three months is hardly considered sufficient time to teach a recruit his drill, (the time may be increased to six months under a recent Act). Six months cannot be considered otherwise than a moderate time for an officer to learn something of his duties. If regular troops require highly trained officers, the Militia ought to have, at least, officers who are thoroughly acquainted with their duties. A complete course might be arranged to consist of two months drill at a school, or

* See the Canadian Militia List, in which every officer has the class of certificates he holds (sometimes three) duly notified.

with a Line regiment, two months at the Hythe, or Woolwich for Artillery officers, and two months at Chatham. At the latter place, a class should be formed for instruction, in shelter, trench and hasty fortification, the mode of laying out camps, &c., and a course of signaling and telegraphy.

10. **ADJUTANTS.**—In the Militia Regulations, no mention is made of the rank and authority of the Adjutant, and, consequently, if we may judge from the numerous letters in the Military Journals of late on the subject, many have some doubts as to their position. It is, however, clearly stated in the Militia Acts, that no Adjutant is entitled to rank above, or to command any Captain of a Company in the Militia.*

11. **INSTRUCTOR OF MUSKETRY.**—According to the Musketry Regulations, the officer must sign the return as gazetted Instructor. Militia officers, however, who have qualified at Hythe, and passed precisely the same examination as officers of the regular army, are not gazetted to the appointment like the latter. Major-general Hay, the Inspector-general of Musketry, in giving evidence before the Militia Commission, in 1859, stated, that he thought that it was only fair that they should be gazetted, as, if not, it was ignoring that they had really passed, (Para. 3727); and that they were quite equal to Line officers (Para. 3697, 3754.5). When the Nottingham (Sherwood Foresters) were embodied, they were the best shooting regiment of the army.

12. **SUPERNUMERARIES AND ENSIGNS.**—The rank of Ensign having been abolished, it is absurd that it should still be maintained in the Auxiliary Forces. In the Volunteer Force, up to the present date, gentlemen are gazetted as *Ensigns*, although there is no longer any such rank! What positions do these officers hold?† Candidates for commissions in the Militia might be appointed sub-lieutenants, until they passed the entrance examination, which, if strictly carried out, requires some time to prepare. If it is not considered desirable to appoint sub-lieutenants, then double the number of lieutenants, as at present all officers who join a regiment with the full complement of lieutenants are treated as supernumeraries, although very few regiments have more than half the number of subalterns required.

13. **STAFF-SERGEANTS.**—These deserving and hard-working body of men are not nearly so well off in the Militia, as in the regular army as they lose sixpence a day for their colours, the benefit of drawing rations, (except during the training,) and the allowance in lieu of lodging, fuel, and light is totally inadequate, in consequence of the great rise in price of all the necessaries of

* Militia Act, England—26 George III., cap. 107, Sec., 60 and 42, George III., Cap. 90, Sec. 77.—Militia Act, Scotland—42 George III., Cap. 91, Sec. 71—Militia Act, Ireland—49 George III., Cap. 120, Sec. 21.—See also pages 16, 896, of the Report of Commissioners on the Militia, 1859.

† See the "London Gazette" and "Army List," both published "by Authority."

life during the last few years. It is scandalous that such a highly respectable body of men, who are entrusted with great responsibility, and considerable sums of money, should receive, in some cases, less than half the wages earned by the mechanics and labourers who compose their regiments. If a shilling a day were added all round, they would still be greatly underpaid.

14. **REGIMENTAL SERGEANTS.**—These non-commissioned officers, who are selected from amongst the men, are with few exceptions entirely useless, as they have neither the time or opportunity of being properly instructed in their various duties. Few things would tend more to the efficiency of the Service than having these men thoroughly instructed, or replaced by non-commissioned officers from the Army Reserve; for no regiment can be well-drilled or disciplined if the non-commissioned officers are not well up to their work.

15. **DOUBLE COMMISSIONS.**—By the 1st April, every officer who holds more than one commission, will have to select which he prefers to retain. At first sight this appears a fair and reasonable regulation, but when it is taken into consideration that there are an immense number of vacant commissions in all branches of the Auxiliary Forces, so that these officers are not keeping others out, as is often supposed, but are doing double work, and thereby rendering themselves more qualified for the duties they have undertaken—what can be better than a Militia officer keeping up his drill all the year round by constant practice in the Volunteers, which latter force has the advantage of his experience and training in the Militia? A much better mode would be to allow officers of Militia to retain their commissions in the Yeomanry or Volunteers, but as supernumeraries. According to a War Office Return dated August, 1871, there were 101 Militia officers holding commissions in the Volunteers, 11 in the Yeomanry, and 2 in both these forces.

Under the old system, when commissions were issued by the Lords-Lieutenant of counties, they were received almost as soon as the appointment or promotion appeared in the *Gazette*, and sometimes even before; but now that they have changed hands, a year does not seem sufficient to prepare them. If a commission is worth having, and most officers consider it is, surely they might be issued with less delay.

16. **ARMY LIST.**—The incomplete state and bad arrangement of this work, so far as it relates to the Auxiliary Forces, has always been good ground for complaint. Although the price has lately been raised, yet when the quarterly index is published the Colonial Auxiliary forces are omitted. If it is considered already sufficiently bulky, why not adopt a larger size page? An index to the Militia is a positive necessity, and there could be no objection to publish one alternately with the present index to the regular Service, should the two combined occupy too much space

a more economical plan would be to publish it in two parts—Part I., Regular Forces; Part II., Auxiliary Forces—and make each complete in itself. One part could be supplied to each regiment, according to the branch of service to which it belongs.

17. ARMY ESTIMATES.—These are looked forward to with interest by many besides M.P.'s, and it is surprising that no attempt seems to have been made for many years to render this complicated volume of statistics more intelligible. The total cost of the Auxiliary Forces, as well as many other subjects, might be more clearly shown; for example, the more effective service connected with the Militia, and also the clothing and warlike stores, instead of being scattered about in other votes, could be included in one. But why the cost of the Jersey and Guernsey Militia should be put down under the head of miscellaneous services, it is difficult to understand.

18. SEALED PATTERNS.—Formerly all Militia regiments were ordered to be supplied with sealed patterns to be compared with the stores when received; but they are now quite ignored. It will rather astonish many officers, however, to be told that the sealed patterns at the Horse Guards to which they are so often referred is a myth, so far as the Militia is concerned; and it is almost incredible that for this force, in which every regiment has a special badge or distinction, there are no regulations or patterns whatever. This accounts for the great dissimilarity which exists in the uniform and appointments of the officers in nearly every regiment.

19. CLOTHING.—The clothing of the Militia has long been a standing disgrace to the country, and a great cause of discontent with the men. The issue of "part worn clothing" is a real hardship, and a cause of endless trouble and dispute. Is it fair to give one man a filthy threadbare tunic because it happens to fit him, and another a brand new one? One of the best informed military papers stated a short time since, "on good authority," that all the old tunics and shell jackets in store belonging to the Line were having the buttons altered, and were to be issued to the Militia. There can be little doubt that this is the fact, as the Militia have for many years had to use up the old surplus stock of the Regular Army. The shakos are extremely bad, and generally of two or three different patterns in each regiment. The great-coats are little better; they are kept in store for ten or twelve years, and only issued when under canvas; at other times the men get wet to the skin, whilst there are plenty rotting in the regimental stores for want of use. The consequence is that when issued, many of them are quite unserviceable from being moth-eaten, patched, and not even waterproof.

20. ARMS AND ACCOUTREMENTS.—These have greatly improved the last few years, with the exception of the knapsacks; and like some of the clothing, when *new* ones are issued, they are always

old. A volume might be written on the subjects here so briefly and imperfectly treated; but as the length of this paper has already exceeded the limits assigned to it, the continuation of this subject must be deferred to a future number, in which the new Dépôt Centre scheme, so far as it relates to the Militia, and the Militia Reserve, will be duly noticed.

ON SOME OF THE LEADING CHARACTERISTICS OF THE BRITISH SOLDIER.

BY LIEUT. HENRY KNOLLYS, R.A., A.D.C.

It has been mentioned, as a characteristic of a certain ancient and great nation, that they spent their time in nothing but hearing or telling some new thing. In this respect, the present generation scarcely seems to be behind hand—for now-a-days, the universal delight is to ferret out new theories and strange facts, and then to proclaim with the utmost vehemence not only their paramount, but their exclusive importance. To point out that what are now called antiquated ideas were startling innovations in the eyes of our forefathers, who were certainly not inferior to ourselves in strength of intellect—that they were only adopted after careful consideration—that other things being equal, the old is better than the new because it is the collective wisdom of many ages, and has been tested in the crucible of experience. To insist on all this would be to incur the charge of crass conservatism, a term nearly equivalent to a broad hint that the objector is little better than an idiot. But though we may consider it wisest to float with the stream generally, may we not in turn require the concession that it is just possible that in our search for new wisdom old truths have fallen into disuetude, and that like the arts of staining glass, or of manufacturing certain sorts of china, they have even lapsed into oblivion? Admitting that the improvements of science have necessitated considerable modifications in the military system, we are, nevertheless, forcibly reminded of one of Mr. Disraeli's strictures on the present age. "We put too much faith," he says, "in systems, and look too little to men." Since human nature remains unchanged, the old minor means must be applicable to the same fundamental ends, and the old influences of disposition may be utilized to perfect the details of our most radical innovations. These influences may, we conceive, be classified in a military point of view, into the sentiment of duty, the inducements of self-interest, the restrictions of honor, and the thirst for glory.

"Sentiment," says the sturdy, practical old soldier; "I don't

want sentiment. I want deeds." And yet, can it be disputed that some of the best deeds have been prompted by sentiment. What, for instance, can be more practical than the sentiment of duty—duty not only in its highest sense, but even duty in the abstract, which arises from a feeling of self-respect, and which, I must be permitted to remark, is largely dependent on education. "Für Vaterland," shouts the Prussian; "Vive la gloire!" cries the Frenchman, when working themselves up to the performance of some courageous charge, or some daring deed, needing the stimulus of a sort of a fanaticism to compensate for the loss of life. But, "England expects every man will do his duty," was the watchword signalled by our great naval hero, as an appeal to the best feelings of those under him, on the eve of gaining his last and splendid victory. The expression has been quoted as one of the happiest instances of inspiration; we prefer to think otherwise. The great architect, Sir Joseph Paxton, the story goes, for months racked his brains to devise a suitable form of building for the Exhibition of 1851—in vain. At last, one day, when in the waiting-room of the Waterloo station, a brilliant and apparently chance sudden thought struck him; he snatched up a pen, and on a sheet of blotting paper, which lay before him, he scrawled a complete outline sketch of the future Crystal Palace. But, after all, the conception was neither sudden, nor was its chance—chance the religion of the fool. His inventive ponderings had for months been drifting in one direction, and, at last, they assumed a tangible shape. In the same way the mainspring of Nelson's actions had, throughout life, been a sense of duty—an emergency put into words this principle which, strong in life, was equally strong in death, his last utterance being: "I hope my country will think I have done my duty."

In a book called "The Lights and Shades of Military Life," edited by the late Sir Charles Napier, the following words are represented as having been spoken by Admiral Collingwood: "The sentiment of duty acquires at last such a sway over the mind, that it enters into the character, and becomes one of its principal features, just as wholesome food—perpetually taken—can change the mass of the blood, and become one of the principles of our constitution." And then the book goes on to say how the old Admiral, more than content with the honours he had gained, keenly longed to return home and rest, and to learn to know his daughters, whom he had not seen since they were babies, but over whose interest he had, by unceasing correspondence, unflaggingly watched. How, over and over again, he entreated to be relieved of his command, and how, year after year, the Admiralty declared that his services were indispensable to his country; how he grew old and grey with hope deferred, and how, at last, he died at sea, where he had lived forty-nine years without complaining—without boasting of his services, without having fulfilled the object of his life, without having seen his two daughters; but having responded to the

calls of duty with a faithfulness which is sometimes depicted in Roman fiction, but which is so rarely exemplified in real life.

Perhaps, however, the impulse of duty is a more strongly-marked feature in the records of English naval and military celebrities than in those of any other nation. The word, indeed, is almost untranslatable, for the "*faites vos devoirs*" with which the heralds of old urged gallant soldiers at tournaments to thrust their lances into the brains of their best friends, for the sake of a glove—size perhaps $6\frac{1}{4}$ —cannot certainly be construed into an equivalent for the practical and disinterested exercise of duty. In those master-pieces of military reports—the Duke of Wellington's Despatches—the word "glory" it is asserted, never once occurs—the word duty over and over again. The last words which Sir Henry Lawrence uttered before dying, were, "Let there be no fuss about me; let me be buried with the men; and he asked "no other speaker of his living actions to keep his honour from corruption" than the inscription over his tomb:—"Here lies Henry Lawrence, who tried to do his duty."

Again, is it possible to find a more brilliant illustration of the force of a feeling of duty than in the wreck of the 'Birkenhead' in 1852. This ship, laden with detachments of men for various regiments serving at the Cape, and with a large number of women and children, at two o'clock in the morning struck upon a rock and rapidly filled. The men first formed up on deck as quietly and with as much regularity as though in the barrack square. Then the women and children, in number 166, were brought from below, and silently embarked in the boats, which forthwith pushed off from the ship's side. Subsequently the commander of the vessel shouted out, somewhat thoughtlessly, perhaps, "All those who can swim, jump overboard and make for the boats." But Captain Wright, of the 91st Highlanders, said, "No, if you do that, the boats with the women must be swamped;" and the brave men stood motionless, without a murmur or a cry in that terrible moment, with an instant and fearful death impending over them—fearful, I say, to a soldier even, because there was none of the enthusiasm, excitement, and uncertainty of strife, none of the pomp and circumstance of glorious war. The men, mindful of their duty, remained steady, and the ship went down, and the waves closed over 454 heroes; but I think we may point to that instance where English soldiers did their duty with warmer pride than did the Lacedæmonians of old to the defence of Thermopylæ.

Let me now cite two cases, less striking than the preceding, but, I think, calculated specially to interest this particular audience.* I once asked the late Sir James Scarlett, with reference to the heavy cavalry charge at Balaclava, "When you suddenly found on your flank the immense mass of Russian cavalry, numbering 2,000 sabres, were you not in considerable doubt what course you should pursue with your handful of under 600 men?" "No," he answered,

* This Paper is the substance of a Lecture delivered last January.

“not for an instant. It was so plain to me, and to every man in my brigade, that for the safety of our army it was our *duty* to charge, that not a thought of our possible ultimate annihilation had the slightest weight with us.” “And did all conduct themselves well?” I inquired. “Yes,” he replied, “I can give no higher praise than to say there was not a single private soldier who did not do his duty.”*

The second case I refer to was when Sir James Scarlett returned for a brief space to England, after the trying winter of 1855. It was then intimated to him that he was appointed definitively to command the entire British cavalry in the Crimea, with the rank of Lieut.-General, a post he had before only temporarily held after Lord Lucan had vacated the appointment. In a conversation with Lord Hardinge, who was then Commander-in-Chief, Sir James explained that private reasons of so cogent a nature that few indeed could call them in question, had determined him to neglect the brilliant opportunity offered, and to decline the appointment. “Well then,” said Lord Hardinge, apparently convinced, “whom do you think we had better send?” “Why, there is — and — and —” was the reply, “all able officers, and all anxious to go.” “Now, my dear Scarlett,” said Lord Hardinge, gravely but kindly, “depend upon it we have carefully weighed the merits of all, and have only fixed upon you because we consider you the best man. I quite admit the validity of your reasoning, but I must point out that you have the alternative of two courses—fulfilling your obligations to your family, or your duty to your Queen and country—choose.” “I do not hesitate for a moment,” said the General, “now that I see how the matter stands; at all hazards I will go.” And he returned to the Crimea without a day’s unnecessary delay. How great a trial this decision must have been is clearly shown by a letter he wrote home shortly afterwards. Alluding to a distribution of K.C.B.’s and other honours, he says:—“My pleasure is all gone in such matters. All I ask is to be able to think I have done my duty and walk in the right path. The price which I have paid for my honours is too great to satisfy me with the bargain.”

It may be objected that all the foregoing is merely theorizing over past momentous episodes, and that the power of the sentiment of duty is hardly applicable to the petty details of every-day life. I submit that it is applicable to such an extent that scarcely 24 hours elapse without our being called on to illustrate it. For instance, there is drill—not drill in the sense of Scharnhorst’s tactics or Napoleon’s manœuvres—but dry, dull, mechanical squad or setting-up drill—the drill of distances and dressing. How often

* Had this lecture been delivered three weeks later, another illustration of the power of duty might have been quoted in the case of the foundering of the ‘Northfleet.’ On this occasion the gallant captain and some of his crew displayed the attribute in its brightest light, while the conduct of most of the passengers showed how pitifully human beings may be degraded in moments of peril, if unrestrained by feelings of duty.

have we wearied over the dismal occupation, and perhaps secretly rebelled at the necessity which claims the services of educated intelligent beings in so prosaic an employment. And yet when we read what that eminently practical soldier, Sir Charles Napier, says on the subject, we discover, if we have not discovered before, that there is a species of poetry even in drill. Addressing the 22nd Regiment, when presenting colours, he says:—"And now, young soldiers, a few words about drill. It is tiresome, and often disheartening, and annoys men. But remember that it is drill that makes companies and regiments, and brigades and divisions act together, and to strike, as it were, with great and mighty blows. It is drill which gives you the battle and the glory of victory."

The Germans have a proverb: "*das Exerciren macht den guten Soldaten*," and the teasing minutiae of drill may, nay certainly will largely influence the fate of our nation should we ever be called on to fight a Wörth, a Gravelotte, or a Sedan, and who will be bold enough to declare that such a strife can never occur in this country. Pardon me if my remarks appear didactic. I seek to meet the arguments of those who tacitly advocate systems instead of men, and in this endeavour to avoid such a tone is well nigh impossible.

Sir James Scarlett, alluding to the feeling of confidence entertained by our well drilled cavalry in the Crimea, and so practically proved at Balaclava, declared that with the raw half-trained men, who later in the war were sent out, he would not have ventured upon a similar cavalry charge. "The new arrivals," he said, "were subjected to incessant drill during the winter and spring months. They soon became equal to the average run of foreign cavalry. But they required another year's drill ere they could be considered types of British Dragoons." The Duke of Wellington said of his highly trained Peninsula Army, that with it he would go anywhere and fight any enemy—and examples might be quoted *ad infinitum*. Now turn to a converse picture, cited in no unfriendly spirit, but simply to point a moral "by indirections to find directions out," to combat the idea almost universal among civilians that intelligent courage will make amends for the absence of drilled steadiness. In 1863 when at Washington, I was conversing with an officer of the American staff. He had been present at the principal actions of the Civil War then raging, and having been educated at West Point,—all who are at all familiar with the general stamp of American officers will appreciate the distinction—his opinion was the more worthy of consideration.

"At Chancellorsville," he said, "we were badly whipped, because our troops were ill-drilled and not habituated to the influences of discipline. In vain we brought up fresh men to the front. They fired off their rifles, faltered, and fell back in disorder. Line after line thus successively melted away, and had we had double the number of troops at our disposal the result would have been

been the same. Matters are now improved. The same soldiers who were defeated in the earlier part of the campaign are better drilled and have become steady under fire. In another year they will probably be all we could wish,"—a prophesy which was certainly justified by the subsequent successes of 1864.

Although I have mentioned my impression that the word *duty* has no precise equivalent in foreign languages I wish to bring under your notice an instance where the true spirit of the term was acted up to with noble fidelity by Colonel Kodolitsch, the Austrian military *attaché* at Paris, whom some of my audience may perhaps recollect at the Autumn Manœuvres of 1871. A few days ago when enquiring of him concerning the charges brought against Marshal Bazaine, which have of late assumed a graver complexion. I suggested that if the latter honestly believed that by an earlier capitulation of Metz, his army released—not merely paroled—could act with greater effect in another part of France, secret negotiations might have been an error of judgment, but not an act of treachery. Colonel Kodolitsch's reply was to the following effect :

"At all events it would have been a dereliction of duty. In the French code there is an article inacting that any officer who shall not defend to the last extremity any fortress committed to his charge shall suffer death, and so on. I feel strongly on this subject having once been placed in a position similar to Bazaine's on a small scale. During the siege of the city of Mexico, when I commanded a corps d'armée, the supreme command in reality devolved upon myself, for the Mexican General was not to be depended on and was seeking an opportunity for making his own terms. We had received various apparently well founded rumours that the Emperor Maximilian had been compelled to give up the contest and that his cause was hopeless. Often and sorely was I tempted to capitulate, for we were reduced to terrible straits, and the inhabitants were perishing through famine by hundreds daily. One day a lady of a noble Mexican family brought me a confidential communication that an officer of Maximilian's dispersed army had effected his entrance by stealth into the town; certain reasons prevented his coming forward, but he brought information of the Emperor's disasters. The lady implored me therefore not to entail further horrors by prolonging an utterly useless resistance. 'Madame,' I replied, 'it is true I can scarcely doubt the accuracy of your intelligence, but you yourself must admit it is just possible it may be incorrect. Supposing then I were to capitulate—supposing the Emperor to be still in the field. When he asks me concerning Mexico, how could I say I have done my duty, were I to deliver up his fortress upon information conveyed to me in this manner?' And the resistance was continued. At last an Indian, who had with much difficulty made his way through the besieging forces, was brought to me. He silently handed me a cigarette. Painfully on the look-out for information, I unrolled the leaf, and in a few

sentences faintly written in Maximilian's handwriting, the authenticity of which was proved by certain signs, I read the Emperor's orders to capitulate and to make the best terms for ourselves possible. Then feeling I had done my duty I surrendered Mexico to the rebels."—Kodolitsch's Adventures.

It probably falls to the lot of most of us to be called on from time to time to carry out some system or some scheme of which we do not approve. A sense of discipline may make us obey, obey with a half sullen, tacitly protesting, doggedly bristling sort of obedience, without good will and true energy. But duty alone, a genuine sense of duty, will enlist a genuine struggle for its success. Lord Cardigan heartily disapproved of the order to charge the Russian batteries, but rightly or wrongly, rightly as we venture to conceive, he considered it his duty to execute it, and he charged with an earnest purpose which is even more admirable than his splendid courage. In fact the most prosaic, the most trivial, perhaps even the most useless deeds may be ennobled by duty. Macdougall in his "Theory of War" says "Every day on which an officer has performed his duty negligently, he has morally obtained money, viz., his pay, for that day on false pretences."

Similarly the corporal of a guard relieving during a dark wet night, according to the prescribed method, sentries posted for form's sake, a subaltern examining stores which he knows to be accurate, or inspecting issues which he knows to be good, or visiting picquet posts which he knows to be on the alert, may be doing credit or discredit to the very best of a soldier's attributes—the sense of duty. Ere I quit this subject let me mention one more instance where combined feeling of duty and generosity prompted a deed so noble that it is not fit the doer should be forgotten. During the Peninsular war, at the combat on the Coa, in 1810, the late Sir George Brown, then a boy ensign of sixteen, rushed up to an earthen bank, and was about to scale it, when Sergeant Robert McQuade, himself only twenty-four years old, perceived two Frenchmen resting their muskets in a gap awaiting the uprise of an enemy. Quietly thrusting his officer aside, and saying, "You are too young, Sir, to be killed," he interposed his body as a shield and fell dead, pierced with both bullets.

Perhaps assigning to the inducements of self-interest, a second place only in the list of influences on the disposition may be objected to. Sardou in the inimitable comedy of "Rabagas" declares that "*les convictions les plus fortes sont les convictions de l'intérêt.*" Possibly, but I adhere to my original classification, because the power of interest is on the whole the more variable of the two. Nevertheless to ignore the former would be to reject a very patent and often a perfectly justifiable lever on men's actions. "Every man," said Talleyrand, "has his price," and all, even soldiers, have their weak and their strong side. In the legend on Montrose, that sly old fox, Major Dugald Dalgetty says that

though he holds it a mean and sordid thing for a soldado to have nothing in his mouth but pay and gelt, like the base cullions, the German Lanz-knechts, and although he is ready to maintain with his sword, that honor is to be preferred to pay, free quarters and arrears—yet, *ex-contrario*, it becomes a wise and considerate cavalier to consider the remuneration he is to receive for his services.”

But men differ as much in susceptibility to moral persuasion as in variety of disposition. For instance, one may excel in organization, another in plodding through details, a third in theory, a fourth in practice, and so on. *Per contra*, A's weak point may be tetchiness, B's self sufficiency, C's jealousy, D's an atrocious temper. Now vice, it has been said, is but virtue carried to excess, and we may so fight men with their own weapons, we may so handle their bad qualities, that we may thereby actually bring out their best characteristics. It is rare indeed to find men who are good all round—they are the constellations of their generation. The Duke of Wellington when a subaltern was dissatisfied with the slowness of his promotion, and applied for employment in the Irish Revenue Board. He failed—had he succeeded he would doubtless have become a first rate financier or political economist; but he failed, and became instead the greatest commander England ever produced. The generality of the world are, however, strong in the strongest points only, unlike timber and cordage, which are strong in their weakest points. Experience is of course a powerful ally to self interest. Unfortunately “no man's experience is of use to any one but himself.” Were this principle not a part of human nature, failure in military undertakings would be almost unknown, so endless are the warnings we persist in disregarding. Some time ago, a member of the Ordnance Select Committee told me that in the great majority of cases, would-be inventors would not take the trouble to make themselves acquainted with the discoveries in their own departments worked out by other brains. After years of labour perhaps they would bring forward as new, contrivances which ages before had been effected, tried and found wanting. Similarly in the race for advancement we might, but for our mulish disregard of the teachings of experience, achieve far more by the failures than by the success of our own schemes.

Of all the qualities, however, which militate against self interest, jealousy is the most fatal. The typical jealousy and the vanity necessarily involved in it, of a pretty woman or an ugly man, is mere milk and water compared with the ferocious jealousy to which military men of all grades, young and old, high and low, brilliant and idiotic, seem to be liable. Napoleon's unworthy jealousy of Moreau, of Richempanse, and of Lecourbe, or of his own Marshals, Kellerman, Macdonald and others, probably racked him as much as the same feeling of a corporal towards a lance-corporal. “Aut

Cæsar aut nullus" appears to be a constant obstacle to the utility of otherwise valuable men, who would in their hearts rather a public good should fail, entailing discredit on rivals than succeed, carrying reputation to themselves. The skill which soothes this jealousy and brings out men's best qualities is nothing more or less than tact—tact which converts poisonous envy into wholesome emulation, enmity into friendship, opposition into co-operation, tact which confers on its possessor the advantage hardly to be over rated of being pronounced "a safe man."

As regards the restrictions of honour and the requirements of military conventionality the chief characteristic is the whimsical nature of their rule. Even in civil life we know there are many contradictory regulations. Sydney Smith used to remark that he never could understand why a man might walk along the road with a brace of partridges in his hand but is forbidden to carry a leg of mutton. As a pendant to the last, by the bye, I may mention that the late General Sir Thomas Brotherton, when a lad in the Guards, betted that he would falsify the rule—walked down St. James Street in broad daylight, in civil costume, carrying a raw joint in his hand—won his bet—was forced to leave the Guards, and began life afresh in a cavalry regiment. But the code of military conventionality is in many respects even more fantastic. Our old friend, Major Dugald Dalgetty, when taken prisoner by the Covenanters at Philiphaugh, and sentenced to death, was reprieved on condition of taking service with his captors. But here the elastic-conscience soldier was unexpectedly obstinate. He had engaged, he said, with the king for a certain time, and until that was expired, nothing would induce him to consent to any shadow of changing. He was again on the point of perishing, a martyr to his peculiar notions of military honour, when his friends fortunately discovered that there remained but a fortnight to elapse of the engagement he had formed, and to which though certain never to be renewed, no power on earth would make him false. A reprieve was procured for this short space, after which Dugald was perfectly willing to agree to any conditions. With an inconsistency equally strange the rebellious Sepoys, it is stated in 1857, habitually required their bands to play God Save the Queen, accompanying it with all the formalities of honour, at the very time when they were striving through a sea of blood to upset the Queen's authority.

In old days there was an inexplicable and curious sentiment of honour connected with kettle drums. The Finland Cuirassiers were reprimanded and their kettle-drums were taken from them by Gustavus Adolphus, because they had assumed permission to march without their corselets. Neither did they strike kettle-drums again at the head of their famous regiment until after they behaved themselves so notably at the field of Leipsic. Apropos of kettle-drums, we may remark, that of old it was considered a point of

honour not to wound the kettle-drummer, probably because he was more or less defenceless. In the times of the Romans it was held the acme of dishonour to lose a shield in battle. Horace gracefully alluding to a certain fight where the poet ran like a hare, says, "*Relictâ non bene parmulâ*," translated "when I was injudicious enough to leave my shield behind."

A soldier's peculiarities in the matter of honour may, however, be turned to good account; and here let me protest against the unwillingness to recognise the *qua virtute* displayed by the majority of the English civilian community. In Prussia, the wearer of the Sovereign's uniform is, *ipso facto*, entitled to respect. With us, the garb of a red coat too often carries with it light esteem. To speak ever so little slightly of the tradesman, the artisan, or the peasant, raises a storm of rage as an insult on the working man; whereas to establish a fresh nucleus of the country's defenders in the neighbourhood of a civil population, however degraded, is to give rise to a protest against further tainting the already tainted atmosphere. To exclude a half-dying sergeant from the comforts of a first-class berth in an Irish steam-packet, simply and solely because he wears the Queen's uniform, arouses but feeble comment, while in social point of view, both officers and privates are no gainers, even if they are no losers by their profession. Regarding these inequitable strictures, we may quote a simile Lord Thurlow once used in a political question. I must leave it to yourselves to apply the illustration. "The one class resemble sheep who uncomplainingly allow themselves to be shorn each succeeding year. The other are like hogs who never fail to grunt forth an indignant remonstrance if but a bristle on their backs be touched."

And yet if soldiers be not jealous in honour, if they do not possess the attributes of gentlemen in their patriotism, in their courage, in their sense of duty, in their defence of the weak against the strong, then they are but hirelings retained for contingent legalized slaughter at so much a day—minus barrack damages. What is more conspicuous than the deferential respect, the gentlemanlike bearing of soldiers towards ladies. In 1857, at Agra, the wounded were brought into the fort and tended by the ladies, and the rough soldiers proved as gentle as any children. During the weeks that the ladies watched over their charge, never a word was said by them that could shock the ears of the purest. And when all was over—when the mortally wounded had died—when the maimed survivors were able to demonstrate their gratitude, they invited their nurses and the chief people of Agra to an entertainment in the beautiful gardens of the Taj, where, amidst flowers and music, the scarred veterans stood up to thank their countrywomen who had ministered to their wants during their time of sore distress. With English soldiers, at all events, the age of chivalry is not passed, and their appropriate motto might be, "*Loyal je serai durant ma vie*." Again, look at the sanctity attendant on the

bearer of a flag of truce, which as Major Dugald Dalgetty remarks, "consisteth not in the faufare of a trumpet or the flap of a flag, which is of itself but an old rag, but in the confidence reposed by both sender and sent in the honour of those to whom the message is conveyed." The spirit of reverence and honour entertained by soldiers towards their colours is indeed a species of religion, and gives an emphatic denial to the regretful question, "Must all charms flee at the mere touch of cold philosophy?" In the way as in the old fable, it was a chance whether the block of wood should be hewn into a table or carved into an idol, so the square piece of silk, bought at a mercer's shop, worth intrinsically a few pounds, and which might have been cut up into a dress, becomes, when fastened to a pole, presented by a lady, and blessed by a clergyman, a sacred symbol of honour, in defence of which each one, whether of high rank or of low rank, young or old, matter of fact or enthusiastic, feels he is bound, if necessary, to shed his blood. Examples of this devotion might be quoted without end. To take one or two which are most conspicuous. At the battle of Dettingen, Cornet Richardson, of the 7th Dragoon Guards, then called Ligonier's Horse, carrying the standard, was surrounded by the French Gensd'armes. "Give up the standard," said one of the throng who was fiercely assailing him. Though he was perfectly helpless, for one hand was holding the bridle and the other the colours, though unable to strike a blow in his defence, though slashed at by a dozen swords, though covered with wounds and streaming with blood, he held on to his charge with bull-dog tenacity, until at last his men rallied around him, cut a way open for escape, and saved the honour of the regiment.

During the retreat of Napoleon's army from Russia, Marshal Ney's corps, originally 40,000 strong, was reduced to about 100 effectives. In the midst of misery and death, orders were given to break up and bury the eagles. The Colonel of the 4th Regiment could not make up his mind to this disgrace. He ordered the staff to be burned, and the eagle to be carried in the knapsack of the standard-bearer, by whose side he himself constantly marched. There is now in the possession of the writer of this article a snuff-box made out of a rescued portion of the staff.

At Waterloo, some of the Polish Lancers charged the 79th Regiment, at that time drawn up in line, and made a dash at the exposed colours. One of the horsemen inflicted a painful wound in the eye of the ensign who bore them, and snatched hold of the colours. The bearer—he was but a boy—though suffering intense agony from his wound, even when in the act of falling, kept a firm clutch on his charge. In another instant the horseman was killed, and the colours saved. At the Alma, the Scots Fusilier Guards, through some misapprehension of orders, fell back a short distance. The colour party became detached, and for a few minutes the colours were in imminent danger. A crowd of Russians flocked

around and attacked the bearers—Lieuts. Thistlewaite and Lindsay—now Colonel Lloyd Lindsay. These latter, with the aid of two escort sergeants, gallantly resisted; but their efforts appeared hopeless, when Lieut. and Adjutant Drummond, whose horse had been shot, rushed to their aid, and using his revolver with deadly effect, caused a diversion in the ensign's favour, until at last the regiment rallied, charged up the hill, and the Russians fled.

It is not, of course, to be doubted that the higher we look in the scale of military gradation, the more strongly will the sentiment of honour be developed; and here, by-the-bye, let me take exception to the strictures passed by the distinguished author of "The Soldiers' Pocket Book," on the expression officer and gentleman. Macaulay, writing of the state of the sister service in 1680, with much force contrasts the improvement of the "personnel" in our modern navy. "In those days," he says, "there were gentlemen and there were seamen; but the gentlemen were not seamen, and the seamen were not gentlemen." In like manner I submit that, *cæteris paribus*, the more thorough a man is as a gentleman, the more perfect he will be as an officer. The types of Ensign Northerton, in "Roderick Random," or of Corporal Trim and Uncle Toby, are now as much out of date as the characteristics they applied to our soldiers: simply that they swore horribly in Flanders. The Duke of Wellington, writing to Kellerman with reference to the parole to be accorded to some of our equally perfect officers and perfect gentlemen who had been taken prisoners during the Peninsular War, says:—"When English officers have given their parole of honour not to escape, be sure they will not break it. Believe me. Trust to their word. The word of an English officer is a surer guarantee than the vigilance of sentinels."

I remember that in that nucleus of our most youthful soldiers, the Royal Military Academy at Woolwich in the old time—I believe the present constitution of the establishment has been much altered—there was a curious point of military honour observed by the cadets, whose conduct, by the way, in other respects, would not always bear too close scrutiny. On a lad's first joining, he was informed that when placed in arrest, a most severe and irksome punishment, no steps whatever would be taken to ensure that he kept it; no roll call or supervision of sergeants, as at Sandhurst. The officers trusted the matter entirely to the cadets' honour; most religiously was this confidence respected. No one, however scampish, thoughtless, or insubordinated, ever dreamed of "smashing," as it was called. In the rare instance where a cadet relaxed his stringency of observance, his error was first of all pointed out to him through the collective kicks of his comrades, and if this had no effect, the case was reported to the subaltern officer. We have a practical instance of a modest, self-sacrificing feeling of honour, which few, perhaps, would have the unselfishness to exercise in the conduct of Outram to Havelock during the Indian Mutiny. Although the

former was the senior officer, he resigned to the latter as having already endured the greater share of peril, responsibility, and fatigue, the honour and the attendant glory of leading the attack on Lucknow. Well might Outram be called the Bayard of the 19th century. A graceful feeling of chivalrous honour was manifested by a French officer to Sir Felton Harvey during the Peninsular War—at the cavalry engagement of El Bodon, the former had raised his sword to cut down the English colonel, when suddenly perceiving that Harvey had but one arm, he brought his weapon down to the salute, and leaving him scatheless, rode on.

The Duke of Wellington displayed a fine trait of honour after the battle of Assaye, when the Prime Minister of the Court of Hyderabad privately offered him upwards of £100,000 if he would disclose what advantages in the treaty of peace had been reserved for his master. The general quietly said: "It appears, then, you are capable of keeping a secret?" "Yes, certainly!" was the answer. "Then so am I," said the Duke, dismissing the envoy. Perhaps you may remark: "Of course; would any but a pettifogging rogue have acted otherwise?" Here then is a converse picture. That great soldier and eminent Indian statesman Lord Clive, after the battle of Plassey, accepted between £200,000 and £300,000 from Meer Jaffier; and really, when we go into the circumstances of the case, it scarcely appears infamous—the House of Commons, at all events, positively refused to vote it illegal. Lord Clive was simply wanting in the Duke of Wellington's fine sense of honour, though when called on for his defence, he denied that he had violated any obligation of morality or honour. He described in vivid language how, after his victory, a great prince was dependent on his pleasure; wealthy bankers bidding against each other for his smiles; vaults filled with gold and jewels, thrown open to him alone. "Mr. Chairman," he concluded, "at this moment I stand astounded at my own moderation!" A modern parallel, on a small scale, to this blunted sense of military integrity may probably be found in the case of one, if not two, French Generals more famous for their courage than for their honesty. You will, I think, have no difficulty in supplying their names; indeed, I cannot but come to the conclusion that the soldiers of that nation have the word "honour" more in their mouths, but far less in their hearts than ourselves. "Tout est perdu sauf l'honneur" was their somewhat bombastic cry at a time when the national perfidy was particularly conspicuous. With them breaking their parole seems a very venial offence. During the last war, when in the north of France, I was repeatedly warned by both French and Prussians, to beware of being shot by the piquets during the twilight; and I was equally frequently exhorted to carry about a false brassard—to tie it on my arm when challenged, and to declare myself a "Johanniter." Any delicate insinuation that such a proceeding would be

extremely dishonourable, seemed to impress them with the idea that such hesitations were out-of-place and pedantic scruples.

After all has been said about military honour, however, we are as far from being able to give a definition of it as when we began. It is not a new faith, a new instinct, or a new religion. Its principles are unalterable; its dogmas unframed; its laws unwritten. Essentially a masculine virtue, as much as intemperance, is a masculine vice; honour may be called virile modesty. With us the disgrace of violating it is greater than any other disgrace. Every man looks grave when its name is uttered. A deviation from truth is, of course, unbecoming an officer and a gentleman; but to break one's word of honour is to commit a double deed of perfidy, and to incur a double degree of shame.

In discussing the thirst for military glory, who can fail to remember with what poetic spirit-stirring beauty Shakspeare has epitomized the subject in the address of Henry Vth, to his men, previous to the battle of Agincourt. Bearing in mind that Shakspeare used the term "honour" in the modern sense of glory, the appeal might have been made by a General of the present time, yesterday, and may be applicable to-morrow. "I would not lose so great an honor as one man more methinks would share from me for the best hopes I have." "If it be a sin to covet honor, I am the most offending soul alive." And then the King points out how the hero, "who returns safe home and sees old age will stand a tiptoe when this day is named;" how, on the vigil of the great victory "he will yearly feast his friends," and stripping his sleeves will say, "these wounds I had on Crispin's day;" how the names of the leaders will be "familiar in their mouths as household words," concluding—

"We shall be rembered

We few, we happy few, we band of brothers.

For he that sheds his blood with me this day shall
be my brother.

But he ne'er so vile this day shall gentle his condition,
And gentlemen in England now abed,
Shall think themselves accursed they were not here;
And hold their manhoods cheap while any speak,
That fought with us upon St. Crispin's day."

It seems reasonable to suppose that even in the present day, on the eve of any great battle every true soldier is more or less actuated by the above considerations—that the thought, though perhaps unexpressed occurs to each how, if he survives and comes safe home, he will in his own little world be made much of and praised, and petted, and glorified as one of an army of heroes.

"Stand fast, men, don't let yourselves be beaten. What will they say in England?" was the Duke of Wellington's exhortation to his exhausted troops on the close of the 18th June, when the wearied squares were staggering under the repeated attacks of the

French. "What will they say in England?" has in past times made many a natural craven play the part of a hero—and though at the present moment "what they say in England," is that £13,000,000 is far too large a sum for the Army Estimates, let us hope that in time of future peril—and periods of peril are as inevitable for nations as for individuals—"what they will say in England" then, will be that £13,000,000 will have been a cheap price to have paid for a brave army who will readily have responded to Horace's expression "*Dulce et decorum est pro patriâ mori*," and of whom it may be said in the words of Punch "They can play, but by Jove they can fight too."

The fact is that in moments of imminent danger there is a special necessity for incentives to special valour. Occasions will arise when you require more than the bare performance of strict duty—when the good horse must be willing to drag up the steep hill not only his own share of his draught, but that of his yoke-fellow's likewise. Said Napoleon of glory "*il en faut pour se faire tuer*," and those who have had practical experience tell us how strongly human nature, unless checked, prompts us to soliloquize when death is impending "I only ask to escape with dear life and without disgrace." The above special incentive was represented in the parsley crown which the Romans used to give to the gladiators, who with their solemn and touching dirge, "*Ave Cæsar! Morituri te salutant*—Hail Cæsar those about to die, salute thee," were ready to engage, perhaps with their dearest friends in a bloody combat, where defeat meant instant death by a comrade's hand unless the usually pitiless spectators by pointing their thumbs down, gave the rarely accorded signal for mercy.

For the same reason Napoleon established the order of the "Legion of Honour," once so great a distinction that it almost comprised the summum bonum of the French soldier, though of late indeed it has been scattered so broad cast that to its non-possessors may be applied Talleyrand's remark of Lord Castlereagh undecorated in the midst of his brother diplomatists "*Comme ils ont l'air distingué*." For the same reason finally, the Victoria Cross was instituted, that the wearer might henceforth be stamped as one who "dares do all that may become a man." Towards the end of Napoleon's wars multitudes of patriotic Germans handed over their plate as a free gift to their exhausted treasury, and received in acknowledgment iron coins stamped with the inscription. "I gave gold for iron." So of the Victoria Cross holder, it may be said: "They pledged life for glory." To such men who seek "to tread the paths of glory, and sound the depths and shoals of honour," is our national military renown, even our national possessions due, for as the German proverb runs: "*den Müthigen gehört der Welt* The world is the property of the valiant."

Sir Garnet Wolseley remarks "Soldiers must be fanatics, an army thoroughly endued with fanaticism may be killed, but can

never suffer disgrace." True indeed, and what strange shapes and prejudices does this fanaticism assume, and of what trifles is it made up. A rose called by any other name, no longer smells so sweet in a soldier's nostrils. Take the best rifle battalion and clothe it in red, and it would soon cease to be the dashing body of skirmishers it is now. The most offensive expression that can be applied to a rifleman is to call him a red soldier.

It is said that in former times one of the privileges most highly valued by the Coldstream Guards was the permission to step off with the right foot instead of the left. The same regiment prides itself in wearing the plume on the right side of the head instead of on the left, as is the custom in all other corps. Another tradition of the Brigade, less trivial and consequently more honourable, is that none of their officers are allowed to volunteer for any special service however desperate. The first on the roster for duty will not be willing, it is assumed, to forego his claim to be first on the roster for personal distinction. At Fontenoy, the English and French Guards found themselves drawn up opposite to, and within a short distance of each other. "Gentlemen of the French Guards, fire first," said Lord John Hay, the English colonel. The Comte d'Autroche, an officer of French Grenadiers replied in loud tones, "Gentlemen, we never fire first—fire you first, if you please." "Well, if you will have it, fire," was the ceremonious reply, and the hostile parties exchanged their deadly volleys. A modern instance of a punctilio which we cannot but admire, was once furnished by the present Admiral Sir Henry Keppel. When cruising in the China seas, his ship struck on a rock and began to settle down. At the critical moment, an American war ship appeared in sight, and quickly came to the assistance of the English. Sir Henry did not, however, fail to pay the proper compliment to the new arrival, and the customary salute was fired just before the ship sunk beneath the waves. The prestige of regimental renown manifested itself in a certain Zouave with whom the late Sir James Scarlett entered into a chance conversation the day subsequent to the unsuccessful attack of the French on the Mamelon, "We failed," he said, "because they employed our miserable *canaille* of the conscript line. Had they entrusted the task to a battalion of your Guards, or to some of us Zouaves, we should have captured the work without the shadow of a doubt." It may not be uninteresting to you if I add that Sir James Scarlett's next remark was, "You speak English extraordinarily well for a French Zouave." "Well," was the reply, "and is that surprising? I was educated at the same school as yourself—Eton. And now," he concluded, turning proudly and sadly away, "you had better not ask me any further questions." No doubt the Zouave was a disgraced Englishman seeking to recover fair fame in a foreign land and in an alien army.

I have already alluded to the expediency of utilizing men's

foibles as well as their better qualities, and one of the foibles, incidental to the thirst for personal distinction is the vanity of dress, rather contemptible it is true, yet somehow or other it goes hand in hand with many military virtues. The Duke of Wellington used to declare that some of his best officers were the greatest dandies, and after all, the more neatly a soldier is turned out, and the more splendidly he is equipped, the more highly he will be thought of by women, and consequently the more highly he will think of himself unless indeed he be one of the wise minority of the population of Great Britain, which as Mr. Carlisle once informed us "consists of 30,000,000 of people—mostly fools."

It would be absurd to pretend that the considerations I have laid before you are habitually or tangibly present in the minds of soldiers of however superior a type. If we question Private Thomas Atkins or Lieutenant Fitzbattleaxe as to the motives whereby they may have been prompted to distinguish themselves in some campaign, they will probable be at a loss for a reply, or they will answer that they only followed the dictates of duty. Nevertheless it is probable that the germs of the poetry of military life unconsciously exercised a powerful influence on their actions. By constantly endeavouring to develop these germs throughout the rank and file, I submit that we may add a fresh lustre to the noble profession of arms, for they may be latent in the mind of the greatest clown that ever took the shilling. To the latter may be applicable the device adopted by the Royal Humane Society—a child breathing on an extinguished torch with the motto "*Latent scintillula forsan*—Perhaps a tiny spark lies hid." Of course if we mistake jealousy for emulation, feverish unwholesome excitement for enthusiasm, envious animosity for patriotism, we shall render ourselves liable both as a nation and as individuals to the same calamities which the countrymen of those types of chivalry, Godefroi de Bouillon and the Chevalier Bayard, have so recently endured. Of course too, theory must be tempered by the maxim which I now eagerly quote, in the hope that it may deprecate overwhelmingly hostile criticism on my lecture.

"Who reasons wisely is not therefore wise,
His strength in arguing, not in acting lies."

FOREIGN SUMMARY.

Paris, February 24.

This day twenty-five years ago "the Napoleon of peace" disappeared from the scene, after a vain attempt to conciliate the Parisians by displacing Marshal Bugeaud, and commissioning M. Thiers to form a Ministry. It was too late, however, and the

Republic of 1848 sprang into being as promptly as the Spanish one has just done. We all know the history of M. Thiers since that time, and now we see him, almost an octogenarian, an uncrowned Monarch, trusting more to his oratory than to anything else for his hold of authority. The constitution-making Commission of Thirty have had debates among themselves, and conferences with him, all through the past month, but nothing that they can urge can induce him to give up his right of addressing either them, or the Assembly, whenever he shall be so minded.

He inflicted a very long speech on them on the 3rd of this month, in which he told them plainly that he must and would have a real, and not a nominal direction of the State, if he had it at all. He was most anxious to agree with them on every thing, on the simple condition that they let him have his own way ; if not, he should appeal to the Assembly, and then they would see what would happen. The Commission wish to reduce him to the condition of a Constitutional King, who comes only on set occasions into his Parliament, makes a speech, and retires, leaving his Ministers to explain or defend his proposals, if necessary. M. Thiers will have none of this. With "the pride that apes humility," he declared himself quite unfit for such a position. He would, he must be, his own expositor. "If," he said, "you refuse me this, if you wish to condemn me to remain silent in the Prefecture of Versailles while the supreme destinies of the country are being decided ; if you question my right of being heard, if you wish to stop my mouth, and make a mannikin of me, I will never, never consent to it, for by consenting I believe I should dishonour myself. If I belonged to those noble families who have done so much for the country, I might, indeed, stoop to this and accept the rôle of Constitutional King ; but I, a *petit bourgeois*, who by dint of study and labour have arrived at being what I am, I could not, I repeat, accept the change of functions which you propose to me without humiliation and without real shame. No, no, I will go again before the Assembly. It will hear me ; it will believe me ; it will do me justice, and so will the country. I wish to be able to fulfil freely the obligations which I have contracted towards the country. I wish to be able to do my duty, and I will not let my hands be tied."

Though more than three weeks have passed since this declaration, and though the Committee have since seen the President again and again, and have even agreed to their Report, which it was thought would materially curtail his power, but really does nothing of the kind, the situation of things is substantially unchanged. The fact is, the collective wisdom of the Thirty is no match for the craft, finesse, statesmanship if you like, of their ancient opponent. His faith in himself is boundless, and the long debate has, at last, closed on his own terms. He believes himself to be "indispensable to France," and certainly no civilian

seems to have any chance against him. How it might be, should some military man come forward, no one can say; but just at present the Army seems in a very docile mood, and General Cissey appears to have nothing more important on his hands than the artillery experiments at Calais, which are expected to produce wonderful results, though I cannot exactly see why. Certainly, nothing very wonderful has occurred as yet. An attempt has been made to use dynamite as the bursting charge for shells, a purpose that it answered but too well, as the whole of the shells burst in the gun. So this agent of destruction is not available, as yet, for artillery. Some new guns have been tried, but as they prove decidedly inferior to Prussian ones of the same calibre, they have been dismissed with ignominy. Some of the guns were of mixed metals reinforced by steel hoops, but one was knocked out of shape at the first discharge, and though others stood somewhat better, all got cracked after a comparatively few rounds. In accuracy of aim, too, they shewed very indifferently; so we have not yet got the proper gun, which is to give us back Alsace and Lorraine, and retaliate on Berlin the affront offered to our beloved Paris.

The Army, as I have said, seems to be in accord with the Republic, but Red Republicans are certainly not in accord with it. Cowardly assaults on single soldiers are still very common, and commanding officers find it necessary to announce that their men have strict orders to "enforce respect for their uniform" by the prompt resort to their arms.

At last a bill sanctioning the new Anglo-French commercial treaty has been laid before the Assembly, with a preamble drawn up by the President himself, which speaks very handsomely of the "truly friendly conduct" of your Government, in taking our present circumstances into consideration; I hope this is not mere compliment. Judged by foreigners, we can hardly appear in straitened circumstances, when they see us so anxious to anticipate the payment of the remaining milliards; the fourth is to be paid early next month, and the fifth and last "by the end of July." At least this was the rumour a few days ago on the Bourse. It may be so, and, in a certain sense, one would hope it might prove true, so that the detested pickelhaubes might disappear; only the ugly surmise occurs, that as they have found it so easy to wring a sum from us such as Germany never dreamt of before, they may think it worth while to pick another quarrel with us before long. But the wish to be rid of the hated presence of the invaders overpowers all other considerations. Till they are gone, we do not feel that our country is our own; and that is a feeling so new, and so strange, that our judgment is somewhat affected by it. But we are not giving all our gold to the Germans; we are employing some, and soon shall employ more, in preparing to fight the battle over again.

Our great men, and public writers, hardly know what to think or to say about our new Republican sister over the] Pyrenees. If we had any real Republicans here, one would suppose them to be delighted at the spread of their principles; but they make no sign. Probably they see no prospect of permanency, and look on the change as a mere stepping-stone for the restoration of Absolutism.

The Ecclesiastical Bills of the Prussian Government have been met by a protest from the Archbishops of Cologne and Posen in the name of themselves, their brother prelates, clergy and people. This document, which is of considerable length, is studiously measured in its language, but its purport unmistakeably is, that the clergy will have no part in carrying out the Government measures, and they "entreat and adjure the rulers of the kingdom, and all having an influence on the conduct of public affairs, to retrace their steps from the fatal path they have now entered on." If it, however, is persevered in, he would be "an unworthy member of the Catholic Church" who would hesitate between giving up his life and surrendering her just rights. "In the interests of the State itself," they pray that this dilemma may not arise, but should it be otherwise, they, and millions more, know how to suffer. The Government organ has issued a reply, threatening to treat the prelates and their abettors as "rebels," in case they persist in their opposition; but threats are not of much effect in such a case. And, as was to be expected, the heads of the Protestant Churches begin to find some of the provisions of the measure too sweeping even for them. At the risk of being denounced as "rebels," they are petitioning and remonstrating; and the matter seems likely to stand over for a while, as the Prussian Liberals have just now got even more exciting game before them, than hunting down priests and pastors.

La Rochefoucault, you may remember, tells us, that even in the misfortunes of our best friends there is a something not entirely displeasing to us. If this holds true, as I fear it does, judge what a pleasant excitement it gives us to see that some of the very high and mighty Prussian officials are the subject of a Royal Commission of Inquiry, as to some suspected corrupt dealings with railway concessions. The great functionaries of the Empire have been denounced on all hands as having turned their official positions to good account for themselves, and few critics have been more hard on them than a certain Prussian privy councillor, Herr Wagener, the editor of the *Kreuz Zeitung*, a Conservative of the first water, and a man of "eminent piety" into the bargain. Many are the eloquent diatribes against the wickedness of the age, especially in irreligious France, that have appeared in his highly respectable paper. Most eloquently the good man has declaimed on the vice and luxury of the age, and the dreadful condition of the unhappy individual who gives up his mind to the pursuit of riches; the

preachers must have envied him his gift of lashing the age. And now it is seen that he has himself all the while been "hasting to be rich" at a rate that would leave many a Frankfort Jew behind. Herr Lasker, a troublesome Liberal, has brought the matter of certain railway concessions before the Parliament, in which Count Itzenplitz, Count Roon, the new Premier, and others, would seem to have granted valuable railway concessions to Wagener, their fellow *employé*, by which he, at least, has made vast sums by selling them to others, even if they have not. Lasker moved for a parliamentary inquiry, which the House seemed well inclined to grant, in spite of some very lame excuses from Count Itzenplitz, who professed to be taken by surprise at Lasker's statements. The parliamentary investigation, is, however, attempted to be staved off by a Royal Commission, issued with much form and ceremony, on which five officials and four members of the Houses are to sit, the matter being allowed, even by the *Provincial Correspondenz*, to be one "in which the honour of the whole bureaucracy is at stake." Herr Lasker can hardly be excluded from the Commission, and the alleged culprits are not likely to receive very lenient treatment at his hands. The impression of the German press seems to be, that Wagener ought to be prosecuted for fraud as well as expelled the council, and that at least Count Itzenplitz will have to resign. The censorship of the press is still a reality in Germany, and so we may probably never know all that ought to be known, but already a *prima facie* case is established, that Prussian officials are not so immeasurably superior to all others, as your philo-Germans would make us believe.

To the apprehension of the Poles at least, there is a fixed purpose to supersede their language by German as far as possible, and some recent ordinances of Dr. Falk, the Minister of Public Instruction, certainly have that appearance even to neutrals. In the gymnasia of "our own Posen," for instance, four times as much time is ordered to be devoted to the teaching of German as is allowed to the people's own tongue, much in the same spirit as the German Town Council of Strasburg limited the teaching of French, as I mentioned to you some time ago. This proscription of a language is as ineffectual as it is illiberal, and the coming contest between the State and Church is well fitted to make the Poles cling to everything Polish more firmly than ever. Dr. Falk, in defending his ordinances against the attacks of a Polish Deputy in the Chamber lately, complained that the question of language was used as a means of dividing the two nationalities, as no doubt it is, and will be, but it is a task beyond the power of the Berlin schoolmaster-Minister to turn Poles into Germans.

According to the explanations given by your Foreign Secretary, it seems that the world in general was very wrong indeed in supposing that there were any serious differences between your Government and that of the Czar. Russia, my Lord Granville is

convinced, has not the least evil design against your Indian Empire. It is much against her will, that she has so large a portion of Central Asia on her hands, and she is only going to send 3,000 or 4,000 men to Khiva, to bring away some 50 prisoners, just as you did in Abyssinia. Everything went off in the most amicable fashion with Count Schouvaloff; the explanations given and received were quite satisfactory, and you may safely return to your policy of "masterly inactivity" in relation to Afghanistan. Whether your people look on things just in this light, you know best; but I confess it seems to me only a putting off of the evil day. Temporising and expediency, however, have long been supposed to be your only policy—as the Danes first, and we afterwards, have found to our cost. We may do you injustice, perhaps, but the Continental opinion of you is, that you are quite as willing to "isolate" yourselves as others can be to "efface" you. Just at present, until the next great war begins, this Manchester policy may seem to answer; but can you believe that it can safely be maintained, when you have half the world in arms around you, as you assuredly will have before very long?

The tragic-comedy of Spanish Constitutionalism, which has for so long kept the country in a ferment, seems at last nearly played out. To be sure, the immediate successor is a Republic as little real as ours, and, like it, in all human probability, the precursor of a return to Absolutism; only in the one case, Imperialism may be expected; in the other, Carlism. As to the restoration of the Christino dynasty, under the name of Alfonsist, that would appear just as probable as a restoration of the elder branch with us—both may be safely relegated to the Greek Kalends.

The comparatively slight matter on which King Amadeus ostensibly founded his very wise resolution of retiring from the scene, proves that he eagerly embraced any plausible excuse for what he had, probably long before, determined to do. Indeed, the wonder is, that he held on to his hopeless position so long. The affair of General Hidalgo was so managed as to appear a personal slight to him, and as he could not dismiss his Ministers himself, he retired, which left them in the hands of the Cortes, and then, in spite of the majority of which they have lately been boasting, very short work was made of Messieurs Zorrilla and Co. It was much in the same spirit as the reply of the Hindoo, whose garden was devastated by monkeys, to the English sportsman: "We can't kill them, but we should be very glad if you would." So Amadeus, as the pressure of the Cortes was brought to bear on him, signed the decree for the appointment of the obnoxious General, as his Ministers desired, and left them to their own devices immediately after.

General Hidalgo, who has served as the immediate cause of the King's abdication, is an Artillery man, who has very justly earned the hatred of his brethren, he having in 1866 sided with the in-

insurrectionary movement in the corps, which resulted in the death of several of his own class, as well as of very many of the sergeants. The insurrection was put down, and Hidalgo retired into private life, but in November last the Zorrilla Ministry thought proper to appoint him captain-general of the Basque provinces. The Artillery officers, almost to a man, protested against this, and many of them tendered their resignations. In a short time Hidalgo had the grace to tender his, the others were then withdrawn, and the storm subsided.

But the Ministry, for some reason that is not very apparent, seem to have charged themselves with the care of the General's fortunes, and in a very short time they appointed him governor of Tarragona. The King, it is said, demurred to this, but his scruples were overcome, and Hidalgo repaired to his post. At once the storm broke out afresh. Protests having been before shewn to be vain, the Artillery officers sent in their applications for leave to retire, at the rate of 500 a week, and it was plainly intimated that the whole would retire *en masse*, unless the treacherous and detested Hidalgo at once received his *congé*. The bright thought struck the Ministry of taking them at their word, and manufacturing a new corps of officers out of the sergeants.

Though not a soldier, Amadeus saw at once that such a step would be ruinous to all idea of preserving military discipline, and he peremptorily refused his consent. The Ministry then appealed to the Cortes on the subject, making it a vote of confidence, and obtained a majority of 191 to 2. How this came about is a matter that has not as yet been explained, but armed with it they repaired to the King, and presented the decree, which he signed without hesitation. Only when they were quitting his presence he detained Zorrilla, and when the rest were out of hearing quietly said, "Now I wash my hands of you all; I shall abdicate." The astounded Premier begged and prayed, and knowing he could not stand an hour alone, would willingly have given way, but the King would not hear a word, and was only with great difficulty prevailed on to take the following day (Sunday, the 9th), to consider whether he would change his resolve or not.

For a wonder, Zorrilla and his colleagues seem to have preserved their momentous secret during that day, but early on Monday an intimation of it got abroad, and when the Cortes met, Figueras and other Republicans came, fully determined to extract full information from the Cabinet. To avoid this, the Ministers stayed away, but they soon learnt that this poor subterfuge would not serve them. Figueras passionately exclaimed, "It is known that we are in, not a Ministerial, but a Monarchical crisis, and it is scandalous that the Ministers are not here to explain." After a while he added, "Let the President summon them to attend,

and if they do not come, let us, the representatives of the Nation, take our resolves without them."

At last the Ministers appeared, and Zorrilla made a long, rambling speech, of which the result was, that he "had no official knowledge" that King Amadeo intended to abdicate, but, "extra-officially," he had an opinion that something of the kind was contemplated. Still, the existing Government was all for liberty and right, and each member was ready to die in the streets in defence of liberty and its institutions. He made a somewhat unlucky conclusion. "We live under a Constitutional *régime*, and we occupy our posts by virtue of the confidence of the Crown and the Cortes. If, indeed, there is one man here, who thinks that this Chamber will in a single day pass from Monarchical to Republican, let him stand forth, and say so!"

The challenge was promptly answered by one Senor Damato, once, it appears, a friend of Prim, but not a friend of his foreign King. "Here is one!" he cried, and a Babel of sounds followed, in the midst of which Zorrilla occasionally jerked out a few words, praying the Chamber to wait awhile for explanations that he hoped to give the next day. All was in vain. Figueras refused to be bound by the formal rules of debate, and, without further preface, brought forward his motion,

"In view of the gravity of the circumstances, the Congress declares itself in permanent session."

He supported this in a fiery speech, in which he scoffed at the idea of waiting for forty-eight or twenty-four hours whilst the King made up his mind. Who could tell what forty-eight, or even twenty-four hours might bring forth? were they to wait till the Army marched in, and deluged the streets with blood? "No, no, no! Rather than that should happen, I would prefer this to to be the last day of my life. After having struggled thirty years for the Republican idea, and for the only safe solution of the situation in the interests of the country, are you now going to undo all for the sake of the petty interests of a puny dynasty?"

The President interposed with, "I beg that in speaking of the dynasty—" but he was silenced by the fierce cry from many voices, "There is none!" and Figueras went on, and carried his hearers with him. Zorrilla demanded, why did he ask a permanent session? did he mistrust the Ministry? Figueras replied, he mistrusted nobody, but he had no confidence in anybody. He had long heard fine promises, but the only echo to them was the sound of the cannon. Let the Chamber remain in permanent session, and then they could defy the reactionists, even though they tried ejection at the point of the bayonet.

The motion was carried by acclamation, and Madrid, strange to say, remained tranquil. Next day King Amadeo's deed of abdication was handed in, and was promptly accepted. The

answer drawn up, it is said by Castelar, is a curiosity as showing how very ceremoniously the foreign King was bowed out of Spain.

So soon as this message was despatched, the Senate and the Congress, sitting as one Chamber, proceeded, on the motion of Senor Pi y Margall, to appoint a responsible Republican Government. Figueras was voted into the chair, and the proposition was carried by 256 votes against 32.

At six the next morning, the ex-King, with his Queen and family, left for Portugal, where it appears they still are. The state of health of the Queen, who was so recently delivered of a son, is quite enough to account for this, but some people see trouble ahead between Spain and Portugal. There has long been a project of an Iberian Republic, to comprise both countries, and the Portuguese seem to fear some attempt to realize it. What King Amadeo could do in the matter, even if backed by Italy, is not very clear; still it is certain that his stay at Lisbon, the offer that is believed to have been made of the services of the English fleet, and other matters that are mysteriously hinted at, cause uneasiness. But this is the case all over Europe, in some countries with more, in some with less, apparent cause. Every one is convinced that the present state of things is but "provisional," and that the existing truce, "from Tagus to the Rhine," may be broken up any day, quite as suddenly as the Savoyard dynasty of Spain.

The Spanish Republic has been proclaimed everywhere, and, apparently, with little opposition; but that it commends itself to the great body of the people, even Messrs. Figueras and Castelar will hardly venture to affirm. All they can hope is, that the masses may become reconciled to it at some far distant day. Among its professed partisans there is a split into "Unitary" and "Federal," and no European Government has as yet recognised it. Of course the Americans have done so, off-hand, as they would recognise a Republic in the Moon, but in this part of the world we still take a short time to deliberate on such a matter. As yet there are no great disturbances reported, but that will not long be the case, if the cry of the very "advanced Republicans" is listened to, for they propose to disband the Army and arm the people. Already, in anticipation of this, a "free corps" has taken possession of Barcelona—always a most turbulent place—the captain-general of the province is concentrating his forces in the neighbourhood, and the inhabitants are preparing for a siege.

The Government appointed on the 12th instant was as follows, but how soon there may be changes among them no one can tell:—

Figueras	.	.	President of the Council.
Pi y Margall	.	.	Minister of the Interior.
Cordova	.	.	War.
N. Salmeron	.	.	Justice.

F. Salmeron	.	.	Colonies.
Beranger	.	.	Marine.
Castelar	.	.	Foreign Affairs.
Becerra	.	.	Public Works.
Echegaray	.	.	Finance.

During the late Administration, nothing was so loudly paraded as the "exertions of our valiant troops" against the Carlists, and "the factious" were crushed a thousand times over. The statements were doubted at the time by all who did not choose to be deceived, and they now turn out to have been utterly untrue. A large part of the Basque provinces is in the actual military possession of the Carlists, and the Government troops evidently have a hard matter to hold their own in other quarters. The details are very confusedly given, but quite enough can be made out to show that St. Sebastian, for instance, is cut off from all communication with the interior by Carlist bands, who threaten to besiege it; that numerous railway stations have been burnt, and several lines have ceased working altogether from fear of the vengeance threatened. Whether Don Carlos is in the country as yet is matter of dispute, but that, if not, he will arrive shortly, and be at the head of a really formidable, well-equipped force, no one seems to doubt. Whether the existing Army would offer any very serious resistance to him is a matter on which differences of opinion exist.

Of course, the political prisoners of yesterday are the heroes of to-day, and are being brought back in triumph from the Balearic Isles, &c. The people of the Basque provinces are invited to lay down their arms, with the promise that their "fueros" shall be respected, but they have been deceived in that matter before by the Ministers of Queen Isabella, and they will hardly give credit to the Republicans; to their minds, the Liberals of any shade are no more to be trusted than the Father of Evil himself. The Negro Emancipation Bill of Zorrilla, it is said, is to be superseded by a measure for the gradual abolition of slavery in all the Spanish possessions, by means of a system of "apprenticeship," but whether the Spanish Republic will last long enough to give the plan a trial is more than I would like to assert.

The abdication of King Amadeo does not seem to attract much notice in Italy. The Republicans, of course, rejoice at the apparent spread of their principles, and the ecclesiastical party rejoice at the humiliation which they suppose Victor Emmanuel must have felt at the humiliation of his son; but this is only natural, on both sides. The Pope shews no sign of giving way, and the Ministry is in evident fear of the consequences of pushing their ecclesiastical bills on too hastily. They are regarded as waiting on their Providence, Prince Bismarck, and seeing how he fares in the Church and State war to which he seems to have committed himself. In the meantime, what your Government, some twenty years ago, styled a "papal aggression" has been committed on

Switzerland, and the worthy mountaineers seem considerably puzzled how to deal with it. A new bishopric has been created by the Pope, and various bulls have been publicly read by the Catholic curés in certain places, all which is against the Constitution. The Federal Council and the State Council of Geneva have taken these matters up, and as a remedy, it is proposed to deprive the bishops of their power of appointing the curés, substituting popular election. The clergy, of all grades, vehemently protest against this; and it is, in the money-getting spirit so characteristic of the present age, proposed to mulct them all of three months salary! A quarrel with such a state as Geneva can never attain dignified dimensions, but the entering on it, just at the present time, may certainly be taken as a proof that the Ultramontane party is not yet ready to lie down and be kicked, even by the renovated German Empire.

RUSSIA, CENTRAL ASIA, AND INDIA.

BY CAPTAIN SPENCER.

PART III.

It is not often in this uncertain world of ours, that a political question of such mighty import as that which has just arisen between Great Britain and Russia has met with such an amicable settlement. It is worthy of the great enlightened age in which we now live, worthy of the two greatest and most powerful empires in the world, it may well serve as a precedent through all time to other governments that may happen to find themselves in a similar position. It also affords a convincing proof of what may be done by a skilful diplomatist possessed of that great gift, common-sense—and the capacity to judge with discretion as to what is in reality right and wrong.

Had France previous to the late war sent to Berlin a diplomatist of a similar stamp to that of the eminent Russian Count Schouvaloff who so lately visited our shores, how different might have been the fate of that unfortunate country.

In the present instance no man can doubt, if we are to judge from the excitement caused in this country in everything connected with the Central Asian question, that war was inevitable in some shape or other with Russia, if that Power, counting upon the strength of her numerous legions, resolved upon doing as she pleased in Central Asia. In a case of this kind any other line of action would be despicable in such a Power as mighty England, she would be wanting to herself, wanting to the millions upon millions

of human beings in India who look up to her as their protector. We may also add to this, it would have the effect of loosening more than anything else could have done our hold over the allegiance of a people who are more attached to our rule through the justness and equity of the administration than any dread that might be apprehended from the coercion of the few thousand British soldiers that are here and there scattered throughout a country of such vast extent.

Happily all this has now become a thing of the past, and so skilfully has everything connected with the settlement been arranged, and so amicably has the Russian Government met our views, and granted all that we demanded without a murmur—that we cannot in justice to our own government withhold from it our most hearty congratulations, nor too much extol that of the enlightened sovereign who now rules the destinies of all the Russias.

It would be perhaps now out of place after all that has been already written on the Central Asian Question were we to enter into a minute detail of all the various stages through which it passed before it came to a final settlement, we shall therefore confine ourselves to a simple narrative of what has taken place, and show how far the settlement may be instrumental in establishing an amicable relationship between two Powers that an allwise Providence seems to have singled out among the nations as its agents for the dissemination of the blessings of true religion, enlightenment, and civilization among the benighted hordes of Asia.

In point of fact the great merit of the settlement rests upon a basis which must prevent more than anything else could have done the more than probable disagreement if not collision between two powers so jealous of their rights and at the same time so bellicose if needs be as Great Britain and Russia. The boundary, or zone as it is called in the language of the diplomatists, acting as a sort of barrier between one power and the other so as to prevent their respective possessions in Asia from immediate contact, was a wise thought in itself, and reflects no little credit on the diplomatic ingenuity of the negotiators. It was also a wise thought, and one admirably carried out—that of selecting as the boundary such a strong position as Afghanistan with its frontiers, or supposed frontiers, stretching out as they do through the very line of country we wished above all things to be independent of any influence that Russia might hereafter exercise over its rulers.

By doing this, we have succeeded as far as human forethought could achieve, in placing British India in security, that is, in so far, as we imagined it might be endangered by the progress in Asia, of such an ambitious, quarrelsome power as Russia hitherto has been known to be. We must not also forget to mention that all this is so far consolatory when we reflect that the negotiation from first to last has been carried out without the slightest disturbance of those friendly relations which subsist, and have sub-

sisted between Great Britain and Russia, ever since the settlement, and we hope, so far as we are concerned, the final one of that ever recurring, ever annoying, Euxine question. But now that Germany is strong enough, backed as she is certain to be by Austro-Hungary to defend their joint interests, we think we may safely leave the care of the Euxine for the future in their hands. Having so far secured the frontier of British India, by the Afghanistan intermediary line, the only part of it that lay open to the attack of an enemy, every other side being effectually protected by the sea, or by a chain of mountains practically impassable, it may now be asked by the reader, since Russia has granted all that we demanded without the use of even an unfriendly word—what has she got in return? The question admits of but one reply—to do as she pleases with the whole of the vast country beyond it, now defined under the name of Central Asia—the land of the Tartar. After such an admission coming as it does from the only Power in the world that was in a position to prevent the progress of Russia in the East, no doubt we shall soon hear of its annexation to the great Russian Empire, either by conquest or in the shape of a protector, which is much about the same thing. However if we glance at the correspondence that has taken place between our Government and that of Russia, we shall find it clearly stated that the latter Power expects us to take upon ourselves the duties of a police officer, in other words that we are to preserve peace in a country where it has never been popular, nor often practicable.

How far this obligation, which appears to have been accepted by our own government, may carry us, can only be answered in the future. That we shall have no little difficulty in our dealings with the rulers of Afghanistan and its turbulent inhabitants no one can doubt that knows anything of that country. Still with all their faults our Afghan neighbours are a highly gifted people, and very much resemble in appearance our own Scots of the olden time; like them they are, proud, brave, and patriotic, very much given to the same vices of quarrelling with their neighbours, and that of appropriating to themselves whenever an opportunity presented itself all that they could lay their hands on, in the shape of flocks and herds, such like worldly gear, and knowing no other law than that might is right, the property of friend or foe to them was all the same, what they wanted they were resolved to have, however great might be the danger.

This propensity, however, of the Afghan tribes eventually led to their ruin, since it rose up against them a host of enemies, who never ceased in their hostility till they had driven them into the fastnesses of their native mountains. But now that the force of circumstances has compelled Great Britain and Russia to give a consistency to the line of boundary they have selected, a new era and a most unexpected one has opened to the future of Afghanistan,

since its independence has not only been guaranteed by these two great Powers, but have given to it an accession of territory, comprising the whole of that immense district extending from Khoja Saleh to the lake of Sarikul as its northern boundary, with, however, this proviso, that they must not overstep the limits of that boundary, nor interfere with the rights and property of their neighbours except at the risk of being again driven to the fastnesses of their native mountains.

What a future is there not here opened to these Afghan tribes if they only know how to profit by it. However as they have a history of their own which they always love to dwell upon, having at one time formed together a great Asiatic power and placed more than one of their own princes on the throne of India, it may be that the remembrance of such a glorious epoch may be the means of stimulating them to the performance of deeds more worthy and humanizing than that of pursuing their old trade of professional brigands. The country they now inhabit together with that which has been just added to it consists for the most part of a vast chain of mountains with its defiles and gorges, its secluded glens and tiny valleys. It is strong by nature, easily defended, and admirably serves for what it is intended to be, a sort of neutralized buffer between the territories of two great empires—alike progressive, equally ambitious and jealous of their respective rights.

We have been expressly somewhat profuse in our sketch of a people who in all probability are destined to play an important rôle in the future history of British India as well as in that of Asiatic Russia.

Having thus far succeeded in securing the only approach of an enemy that might be disposed to invade British India by way of Afghanistan, we have been very much disappointed on finding that the approach to India by Persia, Herat, and Candahar has been as much ignored by our Government in its late negotiations with Russia, as if no such places existed on the Map of Asia, we are therefore forced to come to the conclusion that there does not exist a treaty with the potentates of these States sufficiently stringent as to prevent the possibility of any danger from that quarter.

It would also seem as if Quetta was altogether forgotten—a position which we all know was formerly regarded as a most desirable outpost to our position on the Indus—but which now in accordance with the arrangements we have made with the Russian Government can be nothing more than a retired defensive position far beyond the frontier which we shall have to hold for the future. Does it not then follow, in spite of all we can do in keeping to the old red line, that we shall be obliged sooner or later to make an advance in that quarter, by taking possession in some shape or other of not only Quetta, but Herat, and Candahar?

Be this as it may now that there cannot any longer be a doubt of our having in Asia the great Northern Colossus as a neighbour,

perhaps it would be advisable, in order to make security doubly secure, that measures should be taken, and without delay, of completing the Euphrates Valley Railway. That great work once done, and in full operation, we should then indeed be in a position to take upon ourselves the care of the frontier of British India in that quarter, and although we do not anticipate or apprehend the slightest danger, from any aggression on the part of Russia for many a long year yet to come, even if she was disposed to be troublesome, still there is the long future to be thought of, to say nothing of the chapter of accidents—another great European war—and insurrection of the christian inhabitants of European Turkey and what not, any one of which alone might have the effect of weakening our amicable relations with a neighbour whose interests are far more wound up in those of Continental Europe than ours are, or ever can be, so long as we confine ourselves to our insular position, and the numerous duties it imposes upon us, as the rulers over the greatest empire that the world had ever before seen.

We will now, in a hasty sketch, endeavour to picture to our readers the relative strength of Great Britain and Russia in Asia, and what, in all human probability, would be the final result of a contest, should these two great Powers, by any unforeseen misunderstanding, be compelled to come to blows.

In the first place, perhaps it is scarcely necessary to allude to what is already so well known to every man who of late years has passed some time in British India—that we were never before so much at home in that country, never before so formidable as a great Asiatic military power, nor never before so prepared to meet an enemy from whatever side he might happen to come. We may also add with the becoming pride of a just and conscientious ruler, that British India was never before so prosperous, nor the inhabitants more contented, more industrious and orderly, and singular enough all this, with scarcely an exception, has taken place since the disastrous Mutiny of the native troops in 1857.

In fact the people of India were then taught a lesson which seems to have entirely changed their character. Indeed so much so, that they imitate us in everything we do, and endeavour by careful industry and deep study to raise themselves up to a prominent position in the land of their birth.

Among other things, they now see and fully appreciate all that we have done in securing peace to a country which was never before safe from the iron hoof of an invader, the tramp of the brigand, and all the other evils of intestine wars and insurrectionary outbreaks without end. Then there is the rail and the telegraph, the canal, and the great highway, and all the other appliances for the furtherance of commerce which they are shrewd enough to see that if left to themselves they had neither the means nor the ability to execute. All this has made

such an impression upon the minds of the people that with few exceptions they one and all now acknowledge that the loss of their English rulers would be the greatest misfortune that could happen to India.

Are we not then justified in saying that if nothing occurs to arrest the progress of a country whose resources seems to be inexhaustible that British India may be regarded, ere many years pass over, as one of the wonders of the world—more especially when we remember that all this has been effected within the memory of the present generation and by the administration of a people who had nothing in common with the habits, language, customs, or manners of the numerous races over whom fate had called them to rule and power.

In our little sketch of British India we must not forget to mention the great and important changes for the better that have lately been introduced in everything connected with the war department, which we are happy to say has been placed upon a footing in every respect commensurate with the great extent of our possessions in India, and the necessity of being always prepared for action in a country where there is always to be found so many unruly tribes, together with all the elements of national discord continually surging up in an empire where there are so many semi-independent petty rulers and chieftains—all more or less jealous of each other—actuated by that low Asiatic intrigue to benefit themselves at the expense of their neighbours.

In order to meet all this, and preserve peace among all classes, everything has been so well arranged by the executive that with the aid of the rail and the telegraph, a well equipped army, ready, and prepared for action, can now be sent at almost a moment's notice to any part of our widely extended Asiatic Empire that might happen to be menaced by invasion, or disturbed by any revolutionary outburst of the inhabitants.

What chance then could Russia have, even if she was backed by United Germany in a conflict with a government so well prepared for action as this, and whose extraordinary power, as we have clearly shewn, is based more upon the sympathy and devotion of the inhabitants than upon the strength of its legions. We know that it has long been the fashion among our continental neighbours to revile the native inhabitants of India, as a poor undergrown cowardly race—there never was a greater mistake, the real fact of the matter is this. British India contains among its two hundred millions of inhabitants more than fifty different races, for the most part as robust and courageous as any to be found in our own Europe. Imagine then, what a prodigious force of fighting men in the very prime of life that could be raised up should the British Government of India find it necessary in the event of invasion, or any such like emergency, to issue forth an appeal to arms.

It is well that all this should be widely known, and the present

Emperor of all the Russias must have had not a few discreet advisers about him, when he made up his mind to let those islanders of Old Britain, who some people still persist in saying will not fight, have their own way. Had the late Emperor Nicholas only a little of the foresight and prudence of his more amiable and rightly-judging son, and paid less attention to the dreams of the peace-party and the cry of the alarmist, he never would have undertaken such a perilous enterprise as that which led to the Crimean War. Still, however disastrous that war might have been to the prestige of Russia as a great military power—a conflict with Great Britain in Central Asia would be still more so—and far more difficult to recover from—for then she would be hurled back ignominiously to her northern home, without a possibility perhaps of ever again attempting to establish herself as a great Asiatic power.

In short we have now only to say, and it may be told almost in a word—if Russia wants to destroy herself she has only to provoke a quarrel with mighty England in Central Asia. In the first place she would be fighting thousand of miles away from her base of operations—in addition to which her troops always in mere driblets, in order to avoid the possibility of being starved with hunger—would have to be transported over chains of mountains—arid steppes and all but impassable vallies in the very teeth of fierce martial tribes, who to insure our own safety we would take care should be well armed and commanded by British officers—all in the very prime of life, full of energy and enterprize and who would desire no better sport than a brush with the Russ.

Could Russia indeed get possession of Persia by conquest or by permission of its poor weak sovereign, and then forcibly seize upon Herat or Candahar together with one or two strong positions on the Persian Gulf—there might then be a possibility of her being able to meet her formidable foe on anything like equal ground. But as this is what we will never allow her to do so long as we remain the rulers of India—no, not if we were obliged to spend our last sixpence and send to the seat of war the last regiment from our shores.

Finally, and we may almost say it in a word—the idea of an invasion of British India, by way of Central Asia, is nothing more than a very silly *canard*, and solely due to the creative genius of an imaginative Frenchman, and now again revived by his successor in power, the Teuton of United Germany, who, contrary to their former courtly demeanour, have also commenced to sing the same old song that the French have been singing for the last century or more—to the effect that the British will not fight—that their last hour is come! together with such like stuff and nonsense.

The French have tried it, at their cost, in the Peninsula at Waterloo, and on a hundred other occasions, to say nothing of the sea. The Russians have tried it in the Crimean war, and they have lost. Let our cousins, the Teutons of Germany then beware; a few more insulting epithets, similar to those they have of late been

accustomed to hurl at England and the English, may have the effect of converting a well-meaning, steady friend into an open enemy ; and Germany, in the present state of affairs with mighty Russia on one side, now more formidable than ever, and dangerous irritable France on the other, cannot well afford to lose the amity of a Power that has always, and on every occasion, manifested a sincere desire for the welfare of Germany and the Germans.

Everything considered, we think there is little doubt that the irritation on the part of the Germans which has been alike sudden and unexpected, has had its origin in the very amicable settlement we have just come to in every thing connected with the British India question. It is now no longer a secret as to how much the Germans and the Russians hate each other, and the former finding that all their prognostications of a war, or at least some serious misunderstanding between England and Russia has been falsified, have taken up this pitiful cry of the French of former days to which we before alluded, as a sort of vent proving how bitterly they have been disappointed, well knowing that in a quarrel with Russia we should be fighting the battles of the Fatherland. However, as we are not likely in the future to have many political questions to transact with Germany but a great many with Russia, it follows, if we are to live at peace with our great European-Asiatic neighbours, we must do everything in our power to conciliate them, however displeasing it may be to Germany or to any of the other great Continental Powers.

EDITOR'S PORTFOLIO;

OR,

NAVAL AND MILITARY REGISTER.

Among the causes of public dissatisfaction, which tend to produce what Chancellors of the Exchequer very civilly term "an ignorant impatience of taxation," may certainly be reckoned a belief, that the various Government departments obtain the needful stores for the public service in a needlessly expensive and unbusiness-like manner. These stores, exclusive of building materials, amount on the average to the sum of ten or eleven millions yearly, and officialism is really carried too far when the inquiry whether this large amount has been judiciously expended is stigmatized as the result of "ignorant impatience."

A paper entitled "The Public Stores and how to supply them," appeared in our last Number, the purpose of which was to recommend the establishment of some central supervising body, which, whilst keeping up the responsibility of each department for its purchases, should furnish all with rules for their guidance, so that they might not in future, as is now the case, be seen bidding against each other, but should act in unity, and thus allow the nation to buy in a fair, and not in an exaggerated market.

This subject was brought before the House of Commons on the 21st of last month by Mr. Holms, who moved for a Select Committee to inquire into the principles which regulate the sale and purchase of Stores in the Public Departments, and we are glad to see that the article in question was turned to good account by the honourable Member. He justly remarked on the anomaly, that the War Office and the Admiralty might be seen at the same time advertising for the same articles, as if they were competitors, with the inevitable trade result of raising the price to each, and that, still worse, one department might actually be offering to buy what the other was offering to sell. There were most extraordinary differences of prices too for the same article, such as no

possible difference of quality could justify ; and as it was not to be supposed, or indeed desired, that the public should buy anything too cheap, the natural conclusion was, that in many instances it paid far too dear. The various departments must be brought to consider themselves all as branches of one vast establishment, each doing the best it could for the interest of the whole, and not thinking only of its own purchases. The Committee that he asked for would, he contended, be able to lay down rules applicable to all establishments, by which a very considerable saving would be effected. We are glad to have to state that the proposition was accepted by the Premier, with the acknowledgment that the honourable Member had performed a public service in making it, and we look for the speedy appointment of the Committee, although the motion was eventually withdrawn on a formal point. The benefits likely to flow from it were too freely allowed on all hands for the supposition that the question will be allowed to drop.

There is a feeling of relief, even for English newspaper readers, in the fact that the wearisome debates between the French President and the Committee of Thirty have at last come to an end. To be sure, the Report of the Committee has still to run the gauntlet of the Chamber, and one or two troublesome amendments are talked of, but probably they will all end in mere talk, and will leave the President exactly in the same position that he has so long occupied. Of course this is, in the style of "Rasselas," a "conclusion in which nothing is concluded," but it will suit M. Thiers, and *les autres*, of whatever hue, must grin and bear it.

It probably is of no real consequence, but still it seems to be the fact, that the recent attempt at a "fusion" of the Legitimists and Orleanists has ended in putting them more at variance than ever. Indeed there would seem to be a split in the Orleanist camp, and the Duke d'Aumale is openly accused of trying to put "the younger branch (his own) of the younger branch" forward as competitors for the very shadowy succession to the French Monarchy, to the prejudice of his nephew the Comte de Paris. This, if true, is really a pitiable exhibition, quite unworthy of a man who has hitherto borne exile so well. But it all conduces to the maintenance of the present "provisional" state of affairs, and most people shrink with apprehension for what any change in it

may bring forth. Hated as they are, the presence of the Germans has the good effect of keeping the various parties in France from flying at each others' throats, and it does seem very questionable policy to make such efforts as are being made to pay up the whole of the indemnity even before the time agreed on, and so get them out of the country. The Army, it is very well known, is not in favour of M. Thiers' Republic, which has done nothing to ameliorate many hardships that still press on it. Its sense of honour prevents its openly showing its dislike to the existing Government whilst the invader is still on the soil, but when France is once again her own mistress, it will probably feel itself under no obligation to temporize longer. Its leading officers are certainly not Republicans; they were once decided Imperialists, and such the majority of them will appear again, at the first convenient opportunity.

That nine days' wonder, the Spanish Republic, is already reported to be in a "Ministerial crisis," but probably the chief thing to wonder at is, that the men voted into office when King Amadeo resigned his thankless task, have really had a fortnight's official existence. The changes announced are stated to be for the purpose of establishing a "homogeneous Republican Ministry," and it seems that General Cordova is to be ousted from the Ministry of War. Probably he will have no particular objection, and the task of his successor (General Louville is named) will be no easy one. Even if the Carlists could be kept in check by the "noble Army that has so loyally accepted the Republic," according to the stock phrase of the Madrid papers, a matter that seems exceedingly doubtful, there are other troubles ahead. The Spanish treasury is, as it has so long been, at a desperately low ebb in hard cash, and credit it has absolutely none. Yet the Finance Minister gravely proposes to devote ten millions of reals (about £100,000) to the purchase of rifles, "to arm the people against the reactionists." History seems to be written in vain for such men.

The first few days of the Republic were passed in a quiet that seems rather the result of stupefaction at the audacity of Figueras, Castelar, and a few others, than of approval of their work. Now that the people have had a short time to think it over, disaffection is appearing in all quarters. The hated Red flag has appeared in

Gracia and other places, and the arrival of Communists there and elsewhere is so vehemently denied by the official papers that it may be regarded as certainly true. It is pretty clear that the whole Peninsula, Portugal included, is heaving with the throes of a new revolution, and with the too probable prospect of absolute anarchy not very far in the background. The "Constitutional" schemes—an indifferent copy of our own—has now been tried in both countries for almost half a century, and it is clearly proved to be utterly distasteful to the great body of the nation in each. Nor is this to be wondered at, when the general character of the Southern people is considered; but Constitution-makers have a lofty disregard of the practical. "Liberal opinions" are popularly understood in Spain, and in Portugal also, to be held only by men who are infidels in their own private belief, and robbers of churches and contemners of all sacred things, in their public conduct. And even admirers of Constitutionalism must allow, that a strong case of this description could readily be made out against many leading men, from the time of the Cadiz Constitution down to the present day. That the charge is unjust as to others has no effect on the judgment, or ignorance, or prejudices of the masses, and they will as surely eventually carry the day against the Constitutional system, as the Cortes has now decided against its latest impersonation, King Amadeo. The whole genius of a people is not to be arbitrarily fashioned on imported institutions, however excellent they may be deemed in England.

Most Militia and Volunteer officers are, we presume, acquainted with Captain Spry's very useful little "Guide to the Schools of Instruction for Officers of the Auxiliary Forces," a work, we may remark, that has in a very short time reached its second edition. But it may well be, from business or private engagements, that many gentlemen, who earnestly desire to attain proficiency, may, from various causes, be unable to attend these Schools, or they may prefer to receive some preliminary instruction, and in either case they will be glad to learn that Captain Spry, in conjunction with Mr. Trevor Owen (late of the 11th Hussars), is now forming a Preparatory School of Instruction, in which Officers of the Auxiliary Forces may go through the entire course of study prescribed, before offering themselves for examination in order to obtain their certificates of proficiency. This is a very great advan-

tage, of which we doubt not many gentlemen will gladly avail themselves. The temporary offices of the School are at 47, Charing Cross, and an application to Mr. Owen, the Secretary, will procure all needful information as to the course of instruction, terms, &c.

In another page of the present Number will be found a brief notice of a paper on "Lowering Boats at Sea," read recently at the Royal United Service Institution, by our correspondent, Mr. Stirling Lacon, who, as is well known, has long given his attention to this and other Naval subjects, having ever in view the reducing the loss of life to a minimum in the thousand cases in which it is so constantly imperilled at sea. On the Rule of the Road he has written often, and ably, and he now comes forward with a plan for lowering boats, which appears to us to deserve more attention than it has as yet met with. It was tried full twenty years ago, and was reported on as perfectly successful by Admirals Sir Edward Tucker and Hathorn, and twelve other naval men, and the inventor showed his confidence in it by making the experiment in his own person; yet the Committee appointed last year, in consequence of the catastrophe to the boats of H.M.S. 'Ariadne,' though professing to have "examined all the records existing at the Admiralty since the commencement of 1852, which bear on the questions referred to them," quietly ignored the matter. "I saw," says Mr. Lacon, "(I think I may say so), that there was but little disposition to accept the information which I was desirous of putting before the Committee, and the drawings which I was requested to send in, were not published with the others, but were handed over to the Admiralty, when the Committee broke up. The Admiralty have since deposited them in this Institution at my request."

We are heartily glad to learn from the concluding paragraph of Mr. Stirling Lacon's address, that he does not intend to sit quietly any longer in the cold shade of official neglect. He says, "You have seen how this plan which I have submitted to you was treated by the Admiralty. The Emigration Commissioners refused to see it. I offered to submit it to the Board of Trade, or to any persons to be deputed by them; they also declined even to look at it. I wished to make it available for the benefit of the public, and not to put any restrictions upon what

was intended for the public good and the benefit of mankind. These words were actually in type ; but within the last few days I have taken out a patent, with a view to the formation of a public company, and so to make this matter available for the public safety." We can quite understand the inventor's repugnance to give a money-getting aspect to what is so evidently the product of pure benevolence ; but this is a commercial age, and all must do at Rome as Rome does. The plan may, at any rate, thus get a fair trial which officialism has hitherto denied, and we are sure that its deviser has no other wish than that it should stand or fall by its own merits. A clear stage, and no favour, is all that he asks, and this the public will not deny in deference to departmental apathy.

CRITICAL NOTICES.

HAND-BOOK OF FIELD FORTIFICATION, intended for the Guidance of Officers preparing for Promotion, and especially Adapted to the Requirements of Beginners. By Major W. W. Knollys, F.R.G.S., 93rd Sutherland Highlanders, Garrison Instructor Home District, &c. (Strahan and Co.).

We feel quite justified in warmly commending this work to those for whose use it has been drawn up namely, officers preparing for the Special Army Examination. The author, whom we have pleasure in acknowledging as a contributor to our pages, justly remarks that the majority of works on his subject, beside being usually of very inconvenient bulk, are so full of technical terms and abstruse calculations, as to be all but useless to the student without the constant aid of an instructor ; and such aid, we need hardly remark, is not always to be had. His little Hand-book, on the contrary, is drawn up on the common-sense principle of " assuming that his readers are beginners, and know absolutely nothing of the subject here presented to them." Hence he avoids as far as possible more theoretical calculations and speculations, and thus he finds room to give all the information that is likely to be practically useful to an officer employed as acting engineer in the field. Care has been taken to embody the chief results of the latest experience, and accordingly we have directions for constructing rifle-pits, and for destroying railways, matters that never engaged the attention of Vauban or Cohorn, or any of their successors until very modern times, but which cannot be neglected now. The work is illustrated by upwards of one hundred and sixty slight sketches and diagrams, and is as little encumbered as possible with the " A's, and B's, and scratches," that make a profoundly scientific work such a terror to the unscientific. Yet we venture to say that any young fellow with a head on his shoulders may from it gain the elements of the science that it professes to teach, with no more mental effort than is good in itself, and absolutely necessary to the acquirement of real knowledge on any subject whatever. We are

sure that the real merit of Major Knollys' book will soon create a demand for a new edition, and we would suggest that the opportunity should be taken to add an Index. After the work has been once gone through, the real student will no doubt wish to preserve it for reference; and we hold that no book of reference is complete without an Index; the fuller the better.

A HISTORY OF THE REIGN OF GEORGE III. with Outlines of English Literature during the same period, for the use of Young Students. By the Rev. G. R. Gleig, M.A., Chaplain-General to Her Majesty's Forces. (Longmans, Green, and Co.).

This is a portion of the "History of England," published by Mr. Gleig some thirty years ago, and fitted for the use of those preparing for any of the "examinations" that are now the rage, by the addition of notes, Summaries, Index, &c. We own to a dislike of "cram," and we consider the examination hobby as in a fair way of being ridden to death; but whilst the Powers that be act as if they thought otherwise, aspirants to public employment, whether civil or military, have no choice but to fall in with the scheme. Such being the case, it is well that a portion even of so sound a book as the Chaplain-General's History should be adapted for their use, and we should be glad if, beside answering its temporary purpose, it inspired them with a desire to read the whole work, not for the purpose of passing an examination, but for the lively, yet true picture that it presents, and which shews that history may be made attractive reading, without degenerating into historical romance. As one slight specimen we may instance the "Episode of Major André," with its pendant, the daring adventure of Serjeant-Major Champe, which is most attractively told in pp. 26-32 of the present little work. *Ex pede Herculem.*

EASTERN LEGENDS AND STORIES IN ENGLISH VERSE. By Lieut. Norton Powlett, Royal Artillery. (Henry S. King and Co.)

This is as pleasant a collection of Eastern Legends "done into English verse," of every variety of style and metre, as we have had the good fortune to meet with for many a day. Some of the legends will probably be new to readers who have not served in the East, but we can bear witness that they have an Oriental origin, and may be read in very ordinary prose in some of the publications of the Oriental Texts Translation Society. We, however, prefer our author's lively, rattling verse, and would advise our friends to make themselves acquainted with the story of Sadi and his shrewish wife, the Reward of the Architect of Khawamak, How the Crows came to be Black, and the Hoopoes to have Crowns on their Heads, &c., &c., by his means. Many of the pieces are, as Mr. Powlett says, "old friends with new faces," and afford a curious proof of the kinship of apologue and fable in the East and the West. The Devotee and the Jar of Honey is the counterpart of our stories of counting the chickens before they are hatched; the Ring and the Falcon reminds one of faithful Gelert; and the Gardener and the Bear has been told by many a Western writer, under various forms, to show that an injudicious friend is a perilous possession. "Save me from my friends," has been the prayer of many a man, and with too good reason. The tone of the little volume is in general light and airy, but there are passages here and there, that have a true poetic ring, proving that their author could write in a more elevated style, should it be his pleasure so to do.

GUIDE TO THE SCHOOLS OF INSTRUCTION, for Officers of the Auxiliary Forces. By Captain F. Spry, W.K.L.I.M. (Clowes & Sons.)

A War Office Circular, dated May 28th, 1872, informed officers of

Infantry, Militia and Rifle Volunteers that Schools of Instruction for them would be opened at Aldershot, Glasgow, London, Manchester and Dublin, when there were sufficient numbers of candidates at each station to form a class of ten. As might be expected, such an opportunity was eagerly embraced by many, and to meet their requirements the excellent little book named above has been published. The practical information given in its pages is, considering the size of the manual, great, nothing being missed, from the "Form of Application to attend a School of Instruction," to the copy of "Certificate of Proficiency," which is given to those who pass a satisfactory examination at the end of their month's training. But we imagine that this little work will be as eagerly sought after by Line officers as by those of the Auxiliary Forces, for the contents will be found equally serviceable to the former as to the latter; the instruction on every point being given in language as clear as it is concise and complete. The author deserves the thanks of all Infantry subalterns for placing at their disposal such a "multum in parvo" on matters military; but the best proof perhaps of its being appreciated, lies in the fact that although only a short time published, it has already reached a second edition, and we feel sure its merits will command a still larger sale.

NAVAL AND MILITARY INTELLIGENCE.

LOWERING BOATS AT SEA.—The following is a *resumé* of a paper on this important subject, read by Mr. Stirling Lacon at a Meeting at the Royal United Service Institution, on Monday February 3, Admiral Elliot in the chair. The Lecturer, in his opening remarks, called attention to the method of weighing the anchor, and asked why it should not in a similar way be applied to boats. To lower boats six men are required, two in the boat, two to lower, and two to clear the falls. That there would be more accidents in men-of-war if the boats were not continually lowered for exercise, while in the merchant service a boat remains in the same position from year's end to year's end, and the rope, therefore, when used, forms into kinks, jams, and an accident occurs. And he felt sure that if the same were tried in the merchant service, that was successfully done in the 'Phaeton' when a boat was lowered in a gale of wind and the ship going ten knots, it would be certain death. After the accident to the 'Ariadne,' a committee was formed to inquire into the best method for lowering boats at sea, and the ordinary Service plan was reported as the most satisfactory one extant, but that it was unwise to lower boats at sea with the ship under-weigh, except under special emergencies. Mr. Lacon then gave many instances of accidents at sea while lowering boats, when the only causes were the rope jammings. The instances mentioned were those of the 'Melville,' the 'Venerable,' the 'Avenger,' the 'Kent,' Indiaman and the 'Amazon.' Speaking of the ships plying from San Francisco, steamers of over 4,000 tons, have four lifeboats, capable of holding a very large number of people; but this fact gave him no confidence, as it is seldom they are launched or prove of service to the passengers. The present system demands perfect unanimity of action on the part of the two men lowering a boat, usually a distance of over twenty feet and with rope 250 feet long. Why should not one man if he can let go a anchor, also lower a boat? Some captains have acknowledged the principle, for they have unhooked the tackle and substituted single ropes or pennants; but in doing so they have aggravated the disease without substituting a remedy; for it must be apparent

to everyone that if, in lowering the tackles, there was danger of a heavy boat going down by the run, that danger must be considerably enhanced where the weight has to be balanced and controlled by a single rope.

Mr. Lacon proposed that a screw steamship should be fitted with four boats on his principle, and he guaranteed to put the whole crew into them while the ship was going at full speed. Instantaneous embarkation must be advantageous, as H.M.S. 'Captain,' went down like a stone, and an ironclad on receiving a heavy shot might go down almost immediately. He said that his plan had been tried as long ago as the year 1852 on board the South Eastern Railway Company's boats between Folkestone and Boulogne, on which occasion he had been lowered four times, with the ship going twelve and a half knots, with perfect safety. The plans were at the Admiralty, but had been stowed away out of sight and mind. The method suggested was as follows:—Eye-bolts to be driven through the keel, at the bow and stern, and clinched. Chains with pennants linked to them. At the outer end of the davits, eye-bolts to be driven in for hooking on the tackles, and in the davits three shears, one above the other. In board, an iron bar, with three drums, for coiling rope, is fitted to revolve. One man only is needed to lower by centre drum—he thus is enabled to see the best time to let go both bow and stern together. If the ship is under weigh, the chains will unshackle and fall into the water, and then may be unhooked from the eye-bolts, and may be retained in the boat as ballast or put on board the ship. When at sea the tackle can be stowed away below. Before concluding, Mr. Lacon referred to the case of the 'Northfleet.' The water was comparatively smooth, and three-quarters of an hour elapsed before she sunk. Two boats were only available, and of these one was stove in and the other cut from the davits; and yet this vessel was just before pronounced fit for the voyage by the Emigration Commissioners.

In the discussion that followed, Captain Colomb said, when a new plan was proposed, he always asked himself what trouble does it supersede? The real objection to Clifford's apparatus is the trouble it entails, and he thought the same objection applied to Mr. Lacon's apparatus. A really good apparatus must have these qualities combined:—"To lower the boat square." "One man to lower it from the ship," and "the water to disengage it." He did not see in any apparatus more than one of these qualities. In Mr. Lacon's plan the water does not always detach the boat but the advantages are that it lowers square and only one man is required. Several other naval officers made remarks on Mr. Lacon's plan, in which various opinions were expressed but all agreed in recognising the service that gentleman had done by bringing the subject so important to sailors and others before them and the public.

EDUCATION IN THE ARMY.—The first report of the Director-General of Military Education, Major General Napier, has been published, from which it appears that the following is the state of education of the non-commissioned officers and men:—1. Who can neither read nor write, in 1871, 11,852, or a percentage of 6.89, against, 9.00 in 1869. 2. Who can read but not write in 1871, 10,964, or a percentage of 6.38 against 9.04 in 1869. 3. Who can read and write, 125,442, or a percentage of 79.99 in 1871, against 75.84 in 1869. 4. Who have a superior education, 23,593, or a percentage of 13.72 against 6.09 in 1869. The proportions of uneducated, comprising classes one and two of the above, in the various branches are:—Cavalry, 7.54; Royal Artillery, 10.65; Royal Engineers, 0.18; Foot Guards, 7.44; Infantry, 15.96; Army Service Corps, 6.21; Army Hospital Corps, 0.43.

MILITARY RAILWAYS.—A lecture was delivered a few days ago at the Plymouth United Service Institution by Mr. Fell, of the Mont Cenis railroad on an improved narrow-gauge railway, to be used in the operations of war and for other special purposes, where cheapness and rapidity of construction are to be specially held in view. Mr. Fell described as an introduction to this

subject, the various uses which had been hitherto made of railroads in warlike operations, beginning of course with the example of that constructed from Balaclava in the Crimea. He explained that there were various special desiderata not yet attained for field railways, particularly in the matter of facility of construction. Having discussed various projects submitted by other inventors to the War Office, he went on to describe the real subject of his lecture, the experimental railway of a mile in length recently laid down by himself for the War Office. The problem being to reduce the earthwork, masonry, and excavation to a minimum, this has been done by him in the experimental line by the simple process of dispensing with them altogether and laying a continuous structure of timber, which carries an 18-inch-gauge line, with low carriages projecting over it on either side, and steadied by horizontal wheels working against wooden outside guide rails. He explained that it would be perfectly simple to construct all the timber for any required length of such a line beforehand, leaving for execution on the ground merely the task of sinking holes for the supports, and bolting the pieces together. Five hundred men could put up such a line at the rate of a mile a day in ordinary country; and Mr. Fell's calculation was that if this system had been employed in Abyssinia, the same number of men worked there might have completed the 18-inch, timber-supported railway to Koomayle, half-way to Magdala, in less than a week, and so have saved an immense expenditure in transport. The system, like that used on Mont Cenis, can be adapted to the steepest gradients by a small variation in the construction of the engine.

GUNNERY EXPERIMENTS AT CALAIS.—The *Avenir Militaire* has published the following summarized report of the late trials which have been made at the Calais Artillery ground, by a Special Commission composed of Colonel de Montluisant, President, two Majors, and six Captains of Artillery. The first trials were experiments with dynamite, a substance as yet but little tried for artillery practices, which it was thought might be utilized for filling or loading shells; six, each filled with 150 grammes (five and one-third oz.) of dynamite were fired. The greatest precautions were used, notwithstanding which the six shells burst in the gun. A further trial made a few days later, ended in a similar result. The Commission considered that the use of dynamite for loading projectiles subject to great initial velocity must be abandoned. Trials were next made with two breech-loading guns with steel hoops, and made of metal from different makers. The length of the shell used was 176 millimetres (7 in.), and the weight 4 kilos. 500 grammes (9lb. 15 oz.). The object of these trials was to arrive at the comparative qualities of the two steels, and to ascertain the ranges of the two guns. At the first shot one gun was rendered unserviceable; the second gun stood better, the charge being 1 kilo. (2lb. 3oz.) of powder, nevertheless the head of the striker was broken. This did not stop the trials which were continued with reduced charges varying from 600 to 900 grammes (1lb 5oz. to 2lb.). The maximum velocity was 511 metres (559 yards) per second. After 400 rounds a crack cross-wise was discovered, but not sufficient to prevent the continuation of the experiments. The steel of this gun was manufactured by Messrs. Petin and Gaudet and acknowledged to be of good quality. The results of these trials are important, if not altogether conclusive. It is thought that before long the problem as to the adoption of a new metal for our (French) guns will be entirely solved. The following are some of the results of the trials:—The maximum range is 5,200 metres (5,688 yards), but by increasing the charge to 500 grammes (1lb. 12oz.) 5,650 metres (6,180 yards) were attained. The maximum duration of flight of the projectile was 30.74 seconds; the angle of elevation 55.24 for a range of 5,000 m. (5,469 yards). In testing for accuracy of aim at 3,000 metres, (3,281 yards), the deviation was 28 centimetres (11in.) at 4,000 metres (4,374 yards) 53.5 metres (58 yards), and at 5,000 metres, 134 metres (one hundred and forty six and a-half yards). These results,

though satisfactory, are far from what should be sought for. The accuracy of aim is decidedly inferior to that of the Prussian 4 gun, especially at long ranges. The Commission found in the experimental gun several capital defects—first the centring of the shell while travelling through the gun was not regular; the windage was too great; lastly, the shell did not revolve regular on its own axis before leaving the gun. The Commission is of opinion that with a few changes these defects may be overcome. The breech piece worked well, two rounds being fired per minute. After these trials experiments with the new guns ceased, pending the trials of different kinds of powder which the Minister of War has sent for trial, in order to arrive at their respective qualities. General de Cissey, on his return to Paris, addressed a letter to the President of the Republic, wherein he expressed his entire satisfaction with the experiments he witnessed at Calais, and strongly urged the President to attend the trials himself when some further results have been attained.

FLEET EVOLUTIONS AND NAVAL TACTICS.—An able essay on "Fleet Evolutions and Naval Tactics," was delivered by Com. Cyprian A. G. Bridge, of H.M.S. Cambridge on Feb. 17, in which he gave a very effective review of the existing unsatisfactory conditions of these questions. Com. Bridge considered the great object of fleet evolutions was to lay the foundation of naval tactics, and that the smaller elements, such as the capabilities of each ship as a manœuvring unit, the possibility of manœuvring or handling collectively any aggregation of such units, the best formations and movements for preparation for battle, and the like, should be in the first place carefully considered. He advocated the practising of fleet evolutions during peace for the purpose of ascertaining and establishing tactical formation and manœuvres for adoption in war:—"Up to the present time the naval authorities have only taken advantage of the assemblage of the mightiest fleets ever placed on the seas to execute merely a few dull manœuvres. From the summer cruises of our 'combined fleets' we ought to obtain the knowledge to use our weapons with effect. Why should not some formation be taken, and an advance be made against targets laid out to represent an enemy's line? Some estimate could thus be made at the value of bow-fire when advancing; some knowledge of the relative handiness of different formations for attack; how far smoke from guns or funnels would interfere with the maintenance of formations; which would be the best station for leaders; and many other points might be illustrated upon which there is great need of determination."

OBITUARY.

Retired Captain James Stanley Graham, died on the 3rd Feb. at Arthuret Rectory, Cumberland, aged 36.

Retired Captain William Barrie, died on the 4th Feb. at Douglas, Isle of Man, aged 55. He obtained his first commission, June 16, 1837; was appointed, Aug. 31 following, to the President, in the Pacific; and from Aug. 4, 1842, until promoted to the rank of Commander, Nov. 9, 1846, was employed on the same station as First of the Daphne. He was not since afloat. As a Commander, Capt. Barrie was assistant to the Hydrographer of the Admiralty from 1855 to 1857. He attained his late rank, July 1, 1864.

Retired Navigating Sub-Lieutenant Robert Hamilton Craven Herden, died suddenly on the 31st Jan. at Kirkwall, aged 32.

Retired Surgeon John Scott Davidson, died on the 29th Jan., at Alnbank, Ancrum, aged 60.

Colonel John Potter Hamilton, K.H., late of the Scots Fusilier Guards, died on Jan. 28, at Bodleyfryd, Wrexham, aged 95.

Lieutenant Colonel George Ryley, late of the 74th Bengal Native Infantry, died on Jan. 30, at Carlton Lawn, Cheltenham, aged 56.

Major Charles Lowth, late of the 4th Bengal Light Cavalry, died Feb. 5, at Freeland, Winchester, aged 67.

Major Richard Henry Wall, of the Bengal Staff Corps, and District Superintendent of Police at Moozuffergurh, died on Dec. 9, 1872. He entered the service, Dec. 1848; became Lieut., Sept., 1855; Capt., Dec. 1861; and Major, Dec. 1869.

Major Willoughby Montagu, on half-pay, Royal Artillery, and Knight of St. Vladimir of Russia, died on Feb. 2, at Hobart House, Clapham, aged 81.

Captain Henry Gage de Lansey Groves, of the 7th Madras Light Cavalry died on Dec. 26, at Secunderabad, aged 30. He entered the service, Nov. 1856; became Lieut., 1858; and Capt., Nov. 1868. He served in the Nagpore Province to intercept the rebels under Tantia Topee, from Nov. 9, 1858, to Jan. 26, 1859; also with the column under Sir Hugh Rose during March, 1859.

Major General Henry Bower, late of the Madras Army, died recently aged 68.

Lieutenant General Thomas Matheson, formerly of the 23rd Foot, died on Feb. 14, at Achany, Sutherlandshire, aged 74. He entered the service, Aug. 1815; became Lieut., Oct., 1823; Capt., Aug. 1826; Major, Oct., 1837; Lieut-Col., Nov., 1843; Col., June 1854; Major Gen., April 1859; and Lieut. Gen., Jan. 1868.

Colonel John Turnly Barr, of the Bombay Staff Corps, and resident at the Court of his Highness the Guicowar of Baroda, died on Jan. 21, at 19, Victoria Park, Dover. He entered the service, Jan. 1836; became Lieut., Oct., 1839; Capt., Jan. 1850; Major, Feb. 1861; Lieut-Col. Jan. 1862; and Col., Jan. 1867. He served in the expedition to Mangalore in 1837, and in the campaign in the Southern Mahratta country in 1845.

Major Samuel Madden F. Hall, D.L. and J.P., died on Feb. 17, at Narrow-Water Castle, County Down, aged 71.

Major William Spencer Philips on retired full pay, 62nd Foot, and late 6th Dragoon Guards, died on Feb. 14, at West Brompton. He entered the service, Oct. 1822; became Lieut., Feb. 26; Capt., June, 1855; and Major, Nov. 1855.

Major Rupert George Brady, of the 2nd Foot, died on Jan. 15, at Belgaum. He entered the service, Jan. 1851; became Lieut., June, 1853; Capt., Nov. 1855; and Major, Sept. 1870. He served with the 1st Royal Scots at the siege and fall of Sebastopol from June 1, 1855 (medal with clasp and Turkish medal).

Lieutenant Thomas Sullivan, of H.M.S. *Pert*, died on 5th Jan., at Monte Video, aged 27.

Captain Horatio Walpole, of the 5th Foot, died on Jan. 15, at Bareilly, Bengal, aged 35. He entered the service, 1854; became Lieut. March, 1857; and Capt., March, 1858. He served with the 5th Fusiliers throughout the Indian campaign of 1857-58, including the affair of Marigunge, attacks on the Dilkoosha, Martinière, and Secunderabagh, relief of Lucknow, defence of the Alumbagh, under Outram, from Nov. to March, including the whole of the operations; also at the capture of Lucknow, and the subsequent campaign of 1858-59, in Oude, including the action of Buxarghat, and destruction of Fort Oomrea (medal with two clasps).

Captain George Henville Cherry, late of the 49th Madras Native Infantry, died on Jan. 30th at Port Said, on his passage home from Bombay. He entered the service, June, 1858; became Lieut., April, 1860; and Capt., June, 1870.

Captain Samuel Enderby, on half-pay, York Chasseurs, and late of the 16th Lancers, died on Feb. 5, at Swansea, aged 84.

Surgeon Major William Richardson, M.D., on half pay, of the Royal Artillery, died on Feb. 7, at 1 Bedford Terrace, Plumstead Common, aged 68. He entered the service, April, 1841; Surg. Major, July, 1851; and retired on half-pay, Oct., 1853.

Quartermaster William Gates, on half pay of the Royal Artillery, died on Feb. 6, at Plumstead Common, aged 90.

Retired Commander John Dunsterville died on the 28th ult., at the residence of his brother-in-law, S. Seed, Crown Solicitor, Sarah Ville, Ballybrack, Kingstown, Ireland, in his 63rd year.

Retired Commander Robert W. H. Herbert, died on the 22nd ult., at Hobart Place, Eaton Square.

Lieutenant Thomas Thompson Anderton Smith (1869) died on board H.M.S. *Blanche* on Sept. 29 last at Bonham Island, one of the South Sea group, aged 26.

Midshipman Francis Roger Martin (1869), of H.M.S. *Lord Warden*, was accidentally drowned at Athens on the 18th ult., aged 19.

Colonel Peter Hemery, late Colonel Commandant, Royal Jersey Artillery Militia, died on Jan. 21, at Elm Bank, Jersey, aged 60.

Major James Maurice Shipton, of the 2nd Royal Tower Hamlets Militia, and late of the 33rd Foot, died on Jan. 23, at Southsea, aged 37.

Major Sir Richard Donnellan de Bourgho, Bart., late of the Royal Limerick Militia, D.L., and formerly High Sheriff of the County, died Jan. 27, at Mallow, Ireland, aged 55.

Captain Theophilus Byers Costley, on half-pay, 45th Foot, died on Jan. 11, at Erin Lodge, St. Mary Church, Devon, aged 84.

STATIONS OF THE ROYAL NAVY IN COMMISSION.

*(Corrected to February 25.)**With the Dates of Commission of the Officers in Command.*

- Aboukir, 24, sc., Comdre. A. de Horsey, 1859, Jamaica
 Achilles, 26, Capt. R. P. Hamilton, 1856, Portland
 Agincourt, 28, Capt. Adeane, Rear-Adm. MacDonald, Channel Squadron.
 Antelope, 2, Lieut.-Com. Charles S. P. Woodruffe, 1860, Constantinople
 Ariadne, 26, Capt. the Hon. H. Carpenter, 1866, special service
 Asia, Capt. the Lord Gifford 1859, Flag of Rear-Adml. Sir L. M'Clintock, Guard Ship of Reserve, Portsmouth
 Audacious, 14, Capt. C. W. Hope, 1861, River Humber
 Aurora, 28, Capt. S. Douglas, 1865, Detached Squadron
 Avon, 4, Com. ———— China
 Barrosa, 17, Capt. L. J. Moore, 1863, ordered home
 Basilisk, 6, pad, Capt. J. Moresby, 1864, Australia
 Bellerophon, 15, Capt. M'Crea, 1862, Channel Squadron
 Bittern, 3, Com. P. Stevens, W. C. of Africa
 Black Prince, 28, Capt. E. Lacy, 1862, Greenock
 Blanche, 6, sc., Capt. C. H. Simpson, 1866, Australia
 Boscawen, 20, Com M. Hare, 1866, Training Ship, Portsmouth
 Boxer, 4, Lieut.-com. W. Fitzgerald, 1861, Pacific
 Brilliant, 16, Com. W. H. Brent, 1866, Naval Reserve Drill Ship, Dundee
 Britannia, 8, Cadet Training Ship. Capt. F. A. Foley, 1860, Dartmouth
 Britomart, 2, Lieut.-Com. W. Richards, N. America and West Indies.
 Briton, 10, Capt. Malcolm, 1866 East Indies
 Cadmus, 16, Capt. W. H. Whyte, 1864, China
 Caledonia, 30, Capt. J. Montgomerie 1861, Birkenhead
 Cambridge, 20, gunnery ship, Capt. F. A. Herbert, 1864, Devonport
 Cameleon, 7, sc., Com. C. Mainwaring, 1867, Pacific
 Castor, 22, Commander R. B. Nicholetts 1868, Drill Ship, North Shields
 Challenger, 2, Capt. G. Nares, Surveying Service
 Cherub, 2, Lieut.-Com. F. C. Baker, 1861, N. America and W. Indies
 Clio, 18, Commodore. F. H. Stirling, 1869, Australia
 Clyde, 12, Com. R. H. Boyle, Aberdeen
 Cockatrice, 2, sc., Com. G. D. Morant, 1866, Mediterranean
 Coquette, 4, Lieut.-Com. R. D. Law, 1861, W. C. of Africa
 Columbine, 3, Com. E. W. Hereford, 1866, East Indies
 Cossack, 16, Capt. R. G. Douglas, 1866, Australia
 Crocodile, 2, Capt. G. H. Parkin, 1866, Indian Troop Service,
 Curlew, 3, Com. D. Boyle, 1865, China
 Dædalus 16 Com. E. T. Parsons, 1866, Naval Reserve Drill ship, Bristol
 Danae, 6, sc., Capt. W. S. Brown, 1866, N. America and W. Indies
 Daphne, 5, Com. R. S. Bateman, 1866, East Indies
 Dart, 5, Com. Denny, 1868, S. E. Coast of America
 Dasher, 2, st. ves., Capt. W. F. Johnson, 1864, Channel Islands
 Decoy, 4, Lieut.-Com. J. Hext, W. C. of Africa
 Devastation, 4, Capt. W. Hewett, V.C., Portsmouth.
 Dido, 6, Capt. C. Chapman, 1866 Australia
 Doris, 24, Capt. W. H. Edye, Detached Squadron
 Dove, 2, Lieut J. G. Jones, 1865, China
 Duke of Wellington, 23, Captain Hon. C. Glyn, 1861, Admiral Sir G. Mundy, Portsmouth
 Durham, 20, Com. W. H. Goold, 1867, Sunderland
 Druid, Capt. H. M. Nelson, 1866, West Coast of Africa
 Dwarf, 4, sc., Commander W. Bax, 1867, China
 Eagle, 16, Com. Guy O. Twiss, 1866 Naval Reserve Drill Ship, Liverpl.
 Egmont, receiving ship, Capt. G. A. C. Brooker, 1862, Rio de Janeiro
 Elk, 4, Com. J. Barnett, 1867, China
 Endymion, 22, Capt. E. Madden, 1865, Detached Squadron
 Euphrates, 2, Capt G. C. T. D'A Irvine, 1867, Troop service
 Excellent, gunnery ship, Capt. H. Boys, 1857, Portsmouth

- Favourite, 10, Captain L. Somerset, Queensferry
 Fawn, 15, Com. H. P. Knevitt, 1866, Pacific
 Fisgard, 42, Staff-Com. P. Inglis, 1857, Greenwich
 Flora, 10, Com. F. Thomson, 1864, Simon's Bay
 Fly, 4, Com. T. T. Phillips, 1864, N. America and W. Indies
 Fox, 2, sc. store ship, Staff commander S. Braddon, 1866, store service
 Ganges, 20, training ship, Com. A. R. Tinklar, 1867, Plymouth
 Glasgow, 28, Capt. H. Fairfax, 1866, Rear-Adm. A. Cumming, E. Indies
 Growler, 4, Com. E. H. Verney, 1866, Mediterranean
 Hart, 4, Commander P. H. Royse, 1865, Mediterranean
 Hector, 20, Capt. T. Cochrane, 1857, Southampton Water
 Helicon, Lieut.-Com. F. Rougemont, 1864, special service
 Hercules, 12, Capt. W. Dowell, 1858, Channel Squadron
 Hibernia, receiving ship, Com. E. D. P. Downes, 1864, Rear Adm. E. Inglefield, Malta
 Himalaya, 4, Capt. W. Grant, 1867, troop service
 Hornet, 4, Com. Noel Osborn, 1866, China
 Immortalité, 28, Capt. Mc. L. Lyons, 1862, Portsmouth
 Implacable, 24, Com. A. H. Kennedy, 1866, Training Ship, Devonport
 Impregnable, 78, Capt. J. C. Wilson, 1865, Training Ship, Devonport
 Indus, Capt. C. Fellowes, 1858, Rear Admiral Sir W. Hall, Devonport
 Invincible, 14, Capt., Soady, 1865, Mediterranean
 Iron Duke, 14, sc., Capt. W. Arthur, 1867, Rear-Adm. Shadwell, China
 Jackal, 2, st. ves., Lieut.-com. H. P. Clanchy, 1861, Coast of Scotland
 Jumna, 2, Capt. F. W. Richards, 1866, troop service
 Juno, 6, Capt. J. K. E. Baird, 1864, ordered home
 Kestrel, 4, Com. W. Boulton, Sheerness
 Leven, 3, Lieut.-com. A. W. Whish, 1864, China
 Lively, 2, Com. E. H. Seymour, Channel Squadron
 Lord Warden, sc., 18, Capt. T. Brandreth, 1863, Vice-Adm. Sir Hastings R. Yelverton, K.C.B., Mediterranean
 Lynx, 4, Com. J. S. Keats, 1866, East India station
 Magpie, 3, gunboat, Com. P. Doughty, 1866, East Indies
 Malabar, 3, Captain T. B. Sullivan, India Troop Service
 Martin, 10, Lieut.-Com. C. Gordon, Portsmouth
 Merlin, 4, Lieut.-Com. E. Day, W. C. of Africa
 Midge, 4, Com. C. C. Rising, 1865, China
 Minstrel, 2, Lieut.-Com. W. Parsons, 1861, North America and W. Indies
 Minotaur, 34, Capt. R. Fitzroy, 1872, Rear-adm. G. T. Phipps-Hornby, Channel Squadron
 Mosquito, 4, Lieut.-Com. W. Bond, China
 Myrmidon, 4, Com. R. Hare, Pacific
 Nankin, 50, Capt. R. Courtenay, 1859, Pembroke
 Narcissus, 35, strew, Capt. J. Hopkins, 1867, Rear-adm. F. Campbell, C.B., Detached Squadron
 Nassau, 5, Com. W. Chimmo, 1864, ordered home
 Nereus, 6, store depot, Staff-com. W. Sharp, 1867, Valparaiso
 Nimble, 5, Com. R. Harrington, East Indies
 Niobe, 4, Com. Sir L. Loraine, Bart., 1867, North America and W. Indies
 Northumberland, 26, sc., Capt. J. H. Alexander, C.B., 1863, Channel Squadron
 Opossum, 2, Lieut. H. Fairlie, 1864, Amoy
 Orontes, 2, Capt. J. L. Perry, 1867, troop service
 Orwell, 2, Lieut.-Com. F. Dent, 1860, Queenstown
 Pallas, 8, Capt. C. J. Rowley, 1866, Malta
 Pembroke, 25, sc. Captain G. W. Watson, 1864, Vice-adm. C. G. J. B. Elliot, C.B., Sheerness
 Penelope, 10, Capt. C. Wake, 1859, Harwich
 Pert, 4, Com. C. G. Jones, 1865, Brazils
 Peterel, 3, Com. C. G. Stanley, 1867, Pacific
 Pheasant, 2, Lieut.-Com. H. Crohan, 1862, Gibraltar
 Pigeon, 2, Lieut.-Com. the Hon. F. Crofton, 1859, Mediterranean
 Pioneer, 2, Lieut.-Com. T. H. Larcon, 1863, W. C. of Africa
 Plover, 3, Com. H. N. Hippiusley, 1866, N. America and West Indies
 President, 16, Com. J. B. Scott, 1861, Naval Reserve Drill Ship, City Canal
 Princess Charlotte, 12, Comdre. F. H. Shortt, 1858, Receiving Ship, Hong Kong

- Pylades, 17, Capt. A. C. Strobe, 1863,
 S. E. America
 Racoon, 22, sc., Capt. E. H. Howard,
 1864, North America and West
 Indies
 Rattlesnake, 17, Com. J. E. Commerell,
 C.B., 1859, W. C. of Africa
 Rapid, 3, Com. Hon. V. A. Montagu,
 1867, Mediterranean
 Reindeer, 7, Captain Kennedy, 1867,
 Pacific
 Repulse, 12, Capt. C. T. Curme, Rear-
 Admiral C. F. Hillyar, Pacific
 Research, 4, Capt. C. Buckle, 1864,
 Mediterranean
 Revenge, Capt. B. S. Pickard, 1865,
 Rear-adm. Heathcote, Queenstown
 Rinaldo, 7, Com. George Parsons,
 1865, China
 Ringdove, 3, Com. T. M. Maquay,
 1867, China
 Rocket, 4, Com. A. R. Wright, 1864,
 South East America
 Rosario, 3, sc., Com. H. J. Challis,
 1865, Australia
 Royal Adelaide, 26, Capt. A. Heneage,
 1862, Adml. Sir H. Keppel, K.C.B.,
 Devonport
 Royal Alfred, 18, sc., Capt. Henry F.
 Nicholson, 1866, Vice-Admiral E.
 Fanshawe, K.C.B., North America
 and West Indies
 Salamander, 2, Staff-Com. J. Kiddle,
 1865, Channel Squadron
 Salamis, 2, st. ves. Lieut.-Com. Little-
 ton, 1861, China
 Scout, 21, Capt. R. P. Cator, 1866,
 Pacific
 Scylla, 16, Capt. C. R. Boxer, 1866,
 ordered home
 Seagull, 3, Commander Stubbs, 1865,
 West Indies
 Serapis, 2, Capt. H. D. Grant, 1864,
 Indian troop service.
 Sirius, 6, Capt. David Miller, 1863,
 North America
 Spartan, 8, Capt. J. S. Hudson, 1866,
 N. America and W. Indies
 Sphinx, 6, Capt., H. B. Phillimore,
 C.B., 1864, N. America and W.
 Indies
 St. Vincent, 26, Training Ship, Com. H.
 Hand, 1867, Portsmouth
 Sultan, 12, Capt. E. W. Vansittart
 C.B., 1856 Channel Squadron
 Supply, 5, Staff com. R. Pearce, 1867,
 W. C. of Africa
 Swallow, 3, Com. J. Liddel, 1865,
 N. A and W. Indies
 Swiftsure, 14, Capt. W. Ward, 1864,
 Mediterranean
 Sylvia, 5, Com. H. C. St. John, 1866,
 ordered home
 Tamar, 2, Capt. W. J. Grubbe, 1866,
 Troop Service
 Teazer, 4, Com. J. Fitzmaurice, 1866,
 China
 Tenedos, 8, Capt. E. H. Ray, Pacific
 Terror, 16, sc. Capt. E. D'O. D'A.
 Aplin, 1861, Bermuda
 Thalia, 6, Capt. H. Woolcombe, 1866,
 China
 Thetis, 13, Cap. T. Le H. Ward,
 Devonport
 Thistle, 4, Com. H. Leet, 1866, China
 Topaze, 31, Capt. E. Hardinge, 1865,
 Detached Squadron
 Torch, 5, sc., Com. H. N. Dyer, 1866,
 W. C. of Africa
 Trincomalee, 16, Com. R. Kinahan 1866,
 Naval Reserve, West Hartlepool,
 Valiant, 24, Captain N. Bedingfield,
 1862, River Shannon.
 Valorous, 12, Captain A. Thrupp,
 1865, Portsmouth
 Vanguard, 14, Capt. D. Spain, 1862,
 Kingstown
 Victoria and Albert, steam yacht, Capt.
 H.S.H Prince Leiningen, G.C.B.,
 1860
 Vulture, 3, Com. R. Cay, 1866 E. Indies
 Wizard, 2, Lieut.-com. H. Edwards,
 1861, Mediterranean
 Wolverine, 17, Capt. H. B. Wratishaw,
 1865, East Indies
 Woodlark, 3, Com. J. F. Luttrell, 1865,
 N. America and W. Indies
 Zealous, 20, ironclad, Capt. F. A. Hume,
 1865, Flag of Rear Admiral A.
 Farquhar, Passage home
 Zebra, 7, Com. Hon. A. D. S. Denison
 1866, China

STATIONS OF THE BRITISH ARMY.

The numbers placed after the station indicate the regiment to which the Depot companies are attached.

1st Life Guards—Regent's Park	8th do. (1st bat.)—Bengal, (2nd bat.)
2nd do.—Hyde Park	Do. (2nd bat.) Preston
Royal Horse Guards—Windsor	9th do. (1st bat.)—Guernsey
1st Dragoon Guards—Dublin	Do. (2nd bat.)—Shorncliffe
2nd do.—Brighton	10th do (1st bat.)—Singapore (Depot bat)
3rd do.—Maidstone	Do. (2nd bat.)—passage home (2nd bat. 7th)
4th do.—Dundalk	11th do (1st bat.)—Bengal, (2nd bat.)
5th do.—Manchester	Do. (2nd bat.) Glasgow
6th do.—Aldershot	12th do. (1st bat.)—Athlone
7th do.—Norwich	Do. (2nd bat.)—Bengal, (1st bat.)
1st Dragoons.—Dublin	13th do. (1st bat.) Malta, (2nd bat)
2nd do.—Edinburgh	Do. (2nd bat.)—Dublin
3rd Hussars—Bombay, Canterbury	14th do. (1st bat.)—Bengal, (2nd bat.)
4th do.—Bengal, do.	Do. (2nd bat.)—Chester
5th Lancers—Bengal, do.	15th do (1st bat.)—Cork
6th Dragoons—Cahir	15th do. (2nd bat.)—Gosport
7th Hussars—Hounslow	16th do. 1st bat.)—Jersey
8th do.—Longford	Do. (2nd bat.)—Aldershot
9th Lancers—Woolwich	17th do. (1st bat.)—Bengal, (2nd bat.)
10th Hussars—Bombay, Canterbury	Do. (2nd bat.)—Devonport
11th Hussars—Bengal, Canterbury	18th do. (1st bat.)—Malta (2nd bat.)
12th Lancers—Leeds	Do. (2nd bat.)—Aldershot
13th Hussars—Aldershot	19th do. (1st bat.)—Gosport Forts
14th do.—Newbridge	Do. (2nd bat.)—Bengal, (1st bat.)
15th Hussars—Bengal, Canterbury	20th do. (1st bat.)—Newry
16th Lancers—Madras, do.	Do. (2nd bat.)—Buttevant
17th do.—Ballincollig	21st do. (1st bat.)—Madras, (2nd. bat. 21st)
18th Hussars—Madras, Canterbury	Do. (2nd bat.)—Stirling
19th do.—Aldershot	22nd do. (1st bat.)—Aldershot
20th do.—Colchester	Do. (2nd bat.)—Fermoy
21st do.—Bengal, Canterbury	23rd do. (1st bat.)—Pembroke
Grenadier Guards (1st bat)—Wellington Barracks	Do. (2nd bat.)—Mullingar
Do.—(2nd bat.)—Tower	24th do. (1st bat.)—Gibraltar (2nd bat.)
Do.—(3rd bat.)—Chelsea Barracks	Do. (2nd bat.)—Warley
Coldstream Gds. (1st bat.)—Wellington Barracks	25th do. (1st bat.)—Curragh
Do.—(2nd bat.)—Dublin	Do. (2nd bat.)—Bengal, (1st. bat.)
Scots Fusilier Gds. (1st bat.)—Chelsea	26th do.—Bengal, (99th)
Do.—(2nd bat.)—Tower	27th do.—Gosport
1st Foot (1st bat.)—Aldershot	28th do.—Malta (94th)
Do.—(2nd bat.)—Bengal, (1st. bat. 1st)	29th do.—Barbadoes, (77th)
2nd do. (1st bat.)—Bombay, (2nd bat.)	30th do.—Aldershot
Do. (2nd bat.)—Devonport	31st do.—Gibraltar, (101st)
3rd do. (1st bat.)—Bengal, (2nd. bat.)	32nd do.—Cape of Good Hope (90th)
Do. (2nd bat.)—Dover	33rd do.—Colchester
4th do. (1st bat.)—Portsmouth	34th do.—Curragh
Do. (2nd bat.)—Woolwich	35th do.—Sheffield
5th Foot (1st bat.)—Bengal, (2nd bat.)	36th do.—Bengal, (1st bat. 23rd)
Do. (2nd bat.)—Kilkenny	37th Foot—Bengal, (104th)
6th do. (1st bat.)—Bengal, (2nd bat.)	38th do.—Dover
Do. (2nd bat.)—Curragh	39th do.—Bengal, (depot bat.)
7th do. (1st bat.)—Aldershot	40th do.—Bengal (2nd bat. 8th)
Do. (2nd bat.)—Cork	41st do.—Bengal, (1st bat. 23rd)
	42nd do.—Devonport

43rd do.—Madras (2nd bat. 7th)	79th do.—Parkhurst, (103rd)
44th do.—Madras (depot bat.)	80th do.—Hong Kong (2nd bat. 20th)
45th do.—Madras, (94th)	81st do.—Gibraltar (27th)
46th do.—Aldershot	82nd do.—Chatham
47th do.—Fleetwood	83rd do.—Bombay (depot bat.)
48th do.—Madras, (depot bat.)	84th do.—Corragh
49th do.—Bombay, (95th)	85th do.—Bengal, (3 ^d th)
50th do.—Colchester	86th do.—Cape, (61st)
51st do.—Bengal (50th)	87th do.—Nova Scotia, (1st bat. 12th)
52nd do.—Malta, (103rd)	88th do.—Aldershot
53rd do.—Bermuda, (33rd)	89th do.—Madras, (2nd bat. 22nd)
54th do.—Bengal (depot bat.)	90th do.—Aldershot
55th do.—Bengal, (47th)	91st do.—Fort George
56th do.—Bombay (33rd)	92nd do.—Bengal, (91st)
57th do.—Kinsale	93rd do.—Edinburgh
58th do.—Bengal (88th)	94th do.—Newport
59th do.—Bombay, (47th)	95th do.—Aldershot
60th do. (1st bat.) Nova Scotia (4th bat.)	96th do.—Bengal (101st)
Do. (2nd bat.)—Bengal, do.	97th do.—Dublin
Do. (3rd bat.)—Shorncliffe do.	98th do.—Templemore
Do. (4th bat.)—Winchester	99th do.—Shorncliffe
61st do.—Enniskillen	100th do.—Portsmouth Hill Forts
62nd do.—Bengal, (2nd bat. 17th)	101st do.—Manchester
63rd do.—Bengal (Depot Bat.)	102nd do.—Parkhurst
64th do.—Limerick	103rd do.—Aldershot
65th do.—Bengal (84th)	104th do.—Portsmouth
66th do.—Bombay, (46th)	105th do.—Bengal, (50th)
67th do.—Burmah (1st bat. 4th)	106th do.—Bengal, 35th)
68th do.—Bombay (35th)	107th do.—Madras, (104th)
69th do.—Bermuda, (Chatham)	108th do.—Bombay, (97th)
70th do.—Bengal (100th)	109th do.—Bengal, (2nd bat. 20th
71st do.—Gibraltar, (Fort George)	Rifle Brigade (1st bat.)—Dover
72nd do.—Bengal ditto	Do. (2nd bat.)—Birr
73rd do.—Ceylon, (35th)	Do. (3rd bat.)—Portsmouth
74th do.—Malta, (42nd)	Do. (4th bat.)—Dublin
75th do.—Cape of Good Hope, (57th)	1st West India Regiment—Jamaica
76th do.—Madras, (depot bat.)	2nd do.—Demerara
77th do.—Portland	Ceylon Rifle Regiment—Ceylon & China
78th do.—Belfast	Royal Malta Fencible Artillery—Malta

Depot Battalion, Chatham.

PROMOTIONS AND APPOINTMENTS.

NAVY.

Admiralty, Jan. 18.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 5, 1872, Sub-Lieut. W. M. West has this day been placed on the Retired List of his rank.

Jan. 28.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Lieut. M. Gladstone has this day been placed on the Retired List of his rank.

Jan. 30.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Lieut. J. Buchanan has this day been placed on the Retired List, with permission to assume the rank of Retired Commander.

Feb. 3.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Com. S. MacDougall has this day been placed on the Retired List of his rank; and Lieut. J. N. Croke has been placed on the Retired List from the 17th ult., with permission to assume the rank of Retired Commander.

Feb. 5.

The Rev. F. L. Warleigh has this day been appointed a chaplain in Her Majesty's Fleet.

Feb. 6.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Com. E. Barkley has this day been placed on the Retired List of his rank.

Feb. 7.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Surg. T. M'Carthy has been placed on the Retired List of his rank.

Feb. 8.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Rear Admiral Sir L. G. Heath, K.C.B., has this day been placed on the Retired List.

sions of Her Majesty's Order in Council of February 22, 1870, Admiral the Right Hon. Thomas, Earl of Lauderdale, K.C.B., has this day been placed on the Retired List.

The following promotions consequent thereon, and also dated this day, have taken place:—Vice-Admiral C. Eden, C.B., on the Retired List, to be Admiral on the Retired List; Vice-Admiral the Hon. C. G. J. B. Elliot, C.B., to be Admiral in her Majesty's Fleet; Rear-Admiral F. Scott, C.B., to be Vice-Admiral in her Majesty's Fleet; Captain the Hon. F. Egerton to be Rear-Admiral in her Majesty's Fleet.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, the under-mentioned officers have this day been placed on the Retired List:—Staff Capt. F. H. May, with permission to assume the rank of Retired Captain from this date. Assist. Paymasters: E. Theakston, A. A. Lyne, C. H. Fauvel, D. C. Ker, and R. C. Bates.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Sub. Lieut. C. S. Fuller has this day been placed on the Retired List of his rank.

Feb. 12.

Captain C. J. F. Ewart, C.B., has been promoted to the rank of Rear Admiral from the 8th inst., consequent on the promotion of Captain the Hon. F. Egerton to be Rear Admiral in her Majesty's Fleet.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Rear Admiral Sir L. G. Heath, K.C.B., has this day been placed on the Retired List.

The following promotions consequent thereon, and also dated this day, have taken place:—

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sequent thereon, also dated this day, has taken place:—Captain E. B. Rice to be Rear Admiral in her Majesty's Fleet. Captain F. C. Syer, on the Retired List, has been allowed to assume the rank of Retired Rear Admiral from the same date.

Feb. 13.

The following promotions have this day been made:—Commanders: T. T. Phillips, G. D. Morant, E. H. Seymour, M. A. S. Hare, to be captains in her Majesty's Fleet. Lieutenants: Hon. F. G. Crofton, A. C. H. Paget, M. Byles, W. E. Fitzgerald, H. F. Crohan, F. J. Pitt, C. F. W. Johnson, to be commanders in her Majesty's Fleet.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, Staff Surgeon J. Murphy has been placed on the Retired List from the 7th inst.

Feb. 14.

The following have this day been appointed to be Assistant Surgeons in her Majesty's Fleet, with seniority of October 1, 1872: T. F. Sparrow, M.D., W. H. Boland, J. L. O'Keefe, J. O'Neil, M.D., W. F. Spencer, M.D., R. W. Williams, T. A. O'Donnell, M.D., J. H. L. Allen, A.B., M.B., A. C. Queeley, O. P. Browne, A.B., M.B., E. C. Thompson, A.B., M.B., A. Adams, M.D., F. R. M. Loftie, H. Thornhill, A.B., M.B., G. Gibson, A.B., M.B., J. W. Scott, A. H. Kelly, A.B., M.B., W. C. Ferguson, A.B., M.B.

Feb. 15.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, Lieut. J. Hicks has this day been placed on the Retired List of his rank.

Feb. 17.

Lieut. R. H. Hamond has this day been promoted to the rank of Commander in her Majesty's Fleet, in the haul down vacancy of Admiral the Hon. C. G. J. B. Elliott, C.B., late Commander-in-Chief at the Nore, with seniority of 13th inst. In the *Gazette* of Friday, the 14th inst, the Christain name of J. W. Scott, gazetted as

an Assistant Surgeon in her Majesty's Fleet, should have been "John Walter," and not "John Walker."

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, Captain T. H. M. Martin has been placed on the Retired List of his rank from the 13 inst.

Feb. 20.

In accordance with the provisions of her Majesty's Order in Council of Feb. 22, 1870, Paymaster R. Curgenvin has been placed on the Retired List from the 5th inst.

Vice Admiral—The Hon. George Fowler Hastings, to be Commander-in-Chief at the Nore, vice Elliot, promoted.

Commanders—William H. C. St. Clair, to Cockatrice, vice Morant, promoted; Edward H. Wilkinson, from Coastguard to Lively, vice Seymour, promoted; Coryndon P. Boger, to Hector, for service in Coastguard, vice Wilkinson; Alfred Markham, to Boscawen, vice Hare, promoted.

Lieutenants in Command—W. Collins, from Valorous to Boxer, vice Fitzgerald, promoted; George W. Allen, to Pleasant, vice Crohan, promoted; John A. H. Trotter, from Indus to Pigeon, vice Crofton, promoted.

Lieutenants—Henry Sandford to Royal Naval College, Greenwich; Charles H. Warren, to Pert; Hugh C. D. Ryder, to Impregnable for Squirrel; Henry H. Justice, to Impregnable, vice Ryder; Walter W. Poynter, to Lord Warden; W. E. Darvall, to Penelope; Charles R. Harris to Valorous; Samuel Pulley to Pembroke; Alfred Anderson to Indus; James De B. Lopez, the Hon. William N. Hood and Henry E. Walters to Thetis; Cecil Brooke Palmer to Minotaur; Thomas De Hoghton to Implacable; William Farr, William J. Moore and Joseph E. T. Nicolls to Minotaur (for disposal for one year in Channel Squadron); William N. Madan, and George L. W. Adair to Cambridge; Thomas Suckling, A. M. Causton and Edwards G. Deedes to Clio; A. B. Mansell to

Pembroke; Philip H. W. Mayow and Frederic R. Carr (the latter for special gunnery duties), to Lord Warden; John Giles, Charles G. Gardiner, and H. Dyke to Excellent; William E. B. Atkinson to Cockatrice; Malcolm H. Drummond to Valorous; Charles H. Drummond to Valorous; Charles H. Cross to Duke of Wellington.

Navigating Lieutenant—H. D. Walker to Thetis, vice Wonham, to Pembroke, for service in Barracouta.

Sub Lieutenants—Arthur Dove to Thetis; Henry B. Warren to Royal Alfred; Arthur T. Target, William A. L. Q. Henriques and George S. Bosanquet to Thetis; S. Ewing to Pembroke.

Midshipmen—Percy H. Brideson to Valorous (as supernumerary); Griffith G. Phillips to Thetis; W. M. Oxley to Royal Alfred; James Willison, Alfred R. A. Stock, J. G. W. G. Ozzard and Charles De la P. Beresford to Thetis.

Navigating Midshipmen—F. C. A. Crooke to Thetis; Henry Baker to Royal Alfred.

Naval Cadets—Reginald H. Curteis, Paul Hewett, and F. J. O. Plumer to Thetis.

Chaplains—William W. Parry, M.A., to Thetis.

Staff Surgeons—Thomas J. Breen to Cambridge; John C. Ingles to Immortalité; Thomas J. Green to Cambridge.

Surgeons—Daniel O'Connor, M.D., to Pembroke, vice Eames; William J. Eames to Duke of Wellington from Pembroke; M. Magill, M.D., to Thetis.

Assistant Surgeons—Herbert M. Nash to Thetis; Edward C. Thompson, M.B., Francis R. M. Loftie and John W. Scott to Royal Adelaide, additional for temporary service at Plymouth Hospital; J. L. O'Keefe to Pembroke, additional, for temporary service at Melville Hospital; William J. Wey to Ganges; William H. Patterson to Audacious; Daniel J. Freeman to Pembroke (for temporary service with Sheerness Reserve).

Paymasters—David T. Waugh

to Terror; Frank Pittman to Iron Duke; Isaac B. Moorman to Thetis.

Assistant Paymasters—Horatio W. P. Kooystra to Duke of Wellington; John P. McP. King to Terror.

Engineers—William H. Green to Asia, for service in Tyrian; G. Woollard to Audacious (and for service in Tender); James W. Watson to Thetis (additional).

Assistant Engineers—Second Class: (Acting) John Crocker to Indus (additional for disposal) E.; Attwood to Pembroke (additional, for disposal); and Joseph Organ (acting) to Indus, for disposal.

ROYAL MARINES.

The following promotions and appointments have taken place in the Royal Marine Light Infantry: viz.:—Captain and Brevet Lieut. Colonel E. L. Pym, of the Plymouth Division, to be Lieut. Colonel at the Portsmouth Division, vice Bunch, deceased; Second Captain S. T. Collins to be captain at the Plymouth Division, vice Pym; Lieut. W. H. V. Tom, of the Chatham Division, to be second captain at the Plymouth Division, vice Collins; all dated Jan. 24.

Feb. 3.

The following promotions and appointments have taken place in the Royal Marine Light Infantry, viz.:—Second Captain J. W. Scott to be captain, vice Holland, retired, and to be appointed to the Plymouth Division; Lieut. H. E. Sturt, of the Chatham Division, to be second captain, vice Scott, contingent on his passing the required examination within six months after his return from foreign service, and to be appointed to the Portsmouth Division (both dated Jan. 13).

Feb. 4.

Royal Marine Artillery—The under mentioned gentlemen, having passed the required examination, to be lieutenants, from the dates specified, respectively:—W. Greet, from Feb. 18, 1871; H. C. Sutherland, from June 30, 1871.

ARMY.

THE ARMY GAZETTE.

War Office, Pall Mall, Jan. 31.

Where not otherwise specified the following commissions and announcements bear date Feb. 1, 1873.

1st Dragoon Guards—Lieut. F. S. Leslie, from the 70th Foot, to be lieut., vice Branson, transferred to the 7th Foot.

4th Dragoon Guards—Lieut. C. V. Ibbetson to be adjt., vice Lieut. Douglas, promoted.

10th Hussars—Capt. A. Barthorpe retires from the service, receiving the value of his commission.

14th Hussars—Lieut. A. E. S. Preston, from the 11th Hussars, to be capt., vice the Hon. J. St. V. Saumarez, retired.

20th Hussars—Lieut. C. Mangles to be capt.

Royal Engineers—Lieut. Col. F. H. Rich, on the Supernumerary List, retires on full pay. Capt. J. T. Twigge to be major, vice J. Grantham, retired on half pay; Jan. 15, 1873. Lieut. G. Harris to be capt., vice J. T. Twigge; Jan. 15, 1873.

Coldstream Guards—Alfred Edward Codrington, gent., to be sub lieut., in succession to Lieut. the Hon. C. C. W. Cavendish, transferred to the 10th Hussars.

Scots Fusilier Guards—Capt. and Lieut. Col. C. L. Peel retires from the service, receiving the value of his commission.

1st Foot—Sub Lieut. H. L. Hallewell to stand above Sub Lieut. G. H. B. Coats, the former officer having passed out of the Royal Military College senior on the list to Sub Lieut. Coats.

3rd Foot—Sub Lieut. R. W. McG. Martin to be lieut.; Dec. 30, 1871.

5th Foot—Capt. W. D. Legge retires upon temporary half pay.

6th Foot—Major E. B. Gardyne, from the 106th Foot, to be major, vice E. Lloyd, who exchanges. Lieut. H. Kitchener to be capt.,

vice J. E. Tewart, retired; Aug. 21, 1872.

7th Foot—Lieut. C. B. M. Branson, from the 1st Dragoon Guards, to be lieut., vice A. E. Crichton, transferred to the 70th Foot.

9th Foot—Harry Arnold Armitage, gent., to be sub lieut., in succession to Lieut. Baskerville, promoted.

11th Foot—Lieut. W. H. Beevor retires from the service, receiving the value of his commission.

13th Foot—Lieut. R. F. King retires from the service, receiving the value of his commission.

14th Foot—Sub Lieut. T. W. Penno to be lieut., Dec. 30, 1871.

23rd Foot—Sub Lieut. R. B. Mainwaring to be lieut.; Dec. 30, 1871.

27th Foot—Lieut. T. J. A. Hoban retires from the service, receiving the value of his commission.

32nd Foot—Lieut. A. E. Have-lock to be capt., vice C. F. Clery, made supernumerary whilst employed as an Instructor at the Royal Military College.

33rd Foot—Lieut. G. M. Hayes retires from the service, receiving the value of his commission. Sub Lieut. V. Jenking to be lieut.; Dec. 30, 1871. Sub Lieut. H. O. Bristowe to be lieut., Dec. 30, 1871.

35th Foot—Sub Lieut. G. Harden to be lieut.; Dec. 30, 1871.

36th Foot—Sub Lieut. C. Pulley to be lieut.; Oct. 28, 1871.

38th Foot—Sub Lieut. M. I. Gibbs to be lieut.; Dec. 30, 1871. Walter Chillian Yerbury, gent., to be sub lieut., in succession to Lieut. Stokes, retired.

44th Foot—Sub Lieut. A. G. F. Browne to be lieut.; Oct. 28, 1871. Sub Lieut. C. D. Rosser to be lieut.; Oct. 28, 1871.

45th Foot—The surname of the Senior Lieut. is De Satjéde Thoren, and not De Thoren only, as described.

46th Foot—Sub Lieut. A. M.

Brennan to be lieut.; Oct. 28, 1871. Sub Lieut. F. S. Sorell, to be lieut.; Oct. 28, 1871.

53rd Foot—John Hope Wynne Eyton, gent., to be sub lieut., in succession to Lieut. Bonney, promoted.

57th Foot—Sub Lieut. J. W. E. Massey to be lieut.; Dec. 30, 1871.

59th Foot—Lieut. C. D. Moore retires from the service, receiving the value of his commission.

60th Foot—Lieut. Col. and Brevet Col. G. Rigand retires upon full pay; Capt. J. O. Young retires from the service, receiving the value of his commission.

61st Foot—Major and Brevet Lieut. Colonel A. W. Gordon to be lieut. col., vice Brevet Colonel Redmond, C.B., retired upon half pay; Jan. 15. Capt. W. Blackett to be major, vice Brevet Lieut. Col. Gordon; Jan. 15. Lieut. H. H. A. Stewart to be capt., vice Blackett; Jan. 15. Lieut. Nelson's promotion bears date Jan. 10, 1873, and not as stated in the *Gazette* of the 14th ult. Philip de Hoghton, gent., to be sub. lieut. in succession to Lieut. the Hon. E. J. Chetwynd, promoted.

62nd Foot—Lieut. R. Rogers to be capt. vice J. Bonghey, made Supernumerary whilst employed as an Instructor at the Royal Military College. Lieut. R. A. Poole retires from the service, receiving the value of his commission.

66th Foot—Sub Lieut. H. S. Hassard, from the 97th Foot, to be sub lieut. in succession to Lieut. Hall, promoted.

67th Foot—Sub Lieut. H. S. Severne, from the 91st Foot, to be sub lieut., in succession to Lieut. G. C. Dobbs, appointed a probationer for the Indian Staff Corps on Nov. 4, 1872.

69th Foot—Sub Lieut. L. J. Browne, to be lieut.; Oct. 28, 1871. Sub Lieut. H. B. N. Bewicke to be lieut.; Oct. 28, 1871. Sub Lieut. R. J. G. Creed to be lieut.; Oct. 28, 1871.

70th Foot—Lieut. A. E. Crichton, from the 7th Foot, to be

lieut., vice Leslie, transferred to the 1st Dragoon Guards.

77th Foot—Sub Lieut. A. B. Mein to be lieut.; Dec. 30, 1871.

78th Foot—Capt. E. P. Stewart retires from the service, receiving the value of his commission.

79th Foot—Lieut. J. F. Shaw-Kennedy retires from the service, receiving the value of an Ensigncy.

83rd Foot—Lieut. H. L. Parry retires from the service, receiving the value of his commission.

84th Foot—Sub Lieut. R. St. G. H. Hamilton to be lieut.; Dec. 30, 1871.

88th Foot—Sub Lieut. J. W. Thompson to be lieut.; Dec. 30, 1871. Sub Lieut. G. M. Griffin to be lieut.; Dec. 30, 1871.

91st Foot—Arthur Healy Heathcote Tottenham, gent., to be sub lieut., in succession to Lieut. W. D. Caudwell, promoted.

95th Foot—Sub Lieut. F. E. Trower, to be lieut., Dec. 30, 1871.

106th Foot—Major E. Lloyd, from the 6th Foot, to be major, vice E. B. Gardyne, who exchanges.

Control Department.

Supply and Transport Sub Department—The promotion of Dep. Comm. Ryland, dated Dec. 1, 1872, is to be as Supernumerary Comm., and not as stated in the *Gazette* of 21st inst.

African Branch—Geo. Twizell Wawn, gent., late Clerk in the War Office, to be assist. com.

Medical Department

Local Deputy Inspector General of Hospitals W. C. Maclean, M.D., C.B., late of the Madras Medical Service, to be Local Inspector General of Hospitals, for duty at Netley, whilst employed as Professor of Medicines at the Army Medical School.

Staff Surg. M. L. Burrows, M.D. retires upon temporary half pay, Dec. 22, 1872.

Half Pay.

Capt. and Brevet Col. M. R. S. Whitmore, from half pay 19th Dragoons, and Staff Officer of Pensioners, to be major, dated Oct. 1, 1871, such commission

being non-saleable, and not conferring any purchase rights.

Brevet.

Lieut. Col. and Brevet Col. G. Rigaud, retired full pay 60th Foot, to have the honorary rank of Major Gen.; Lieut. Col. F. H. Rich, retired upon full pay, Royal Engineers, to have the honorary rank of Col.; Major and Brevet Col. M. R. S. Whitmore, half pay 19th Dragoons, and Staff Officer of Pensioners, retired upon full pay, to have the honorary rank of Major Gen., dated Oct. 1, 1871. as notified in the *Gazette* of Oct. 6, 1871. Paymr. W. Hughes, 85th Foot, to have the honorary rank of Capt.; Nov. 20, 1872.

The undermentioned officers having completed the qualifying service with the rank of Lieut. Col., to be cols.:—Lieut. Cols. W. Gordon, Bengal S.C.; June 11, 1872. D. Briggs, Bengal S.C.; June 11, 1872. H. S. Bivar, Bengal S.C.; June 11, 1872. R. Ranken, Madras S.C.; June 12, 1872. C. L. Montgomery, Bengal S.C.; June 12, 1872; B. T. Reid, Bengal S.C.; June 12, 1872. R. D. Macpherson, Bengal S.C.: June 12, 1872. J. P. Nixon, Bombay S.C.. June 12, 1872; E. F. Waterman, Madras S.C., June 12, 1872; R. W. Chambers, Bengal S.C.; June 12, 1872; H. W. H. Coxe, Bengal S.C. June 21, 1872; H. T. Briggs, Bombay S.C., July 2, 1872; A. T. Etheridge, C.S.I., Bombay S.C., July 13, 1872; J. D. Williams, Bombay S.C., July 14, 1872; J. A. Angus, Bengal S.C., July 15, 1872; E. L. Scott, Bombay S.C., July 25, 1872; J. Smith, Bengal S.C., July 29, 1872; F. G. Stainforth, Bengal S.C., Aug. 4, 1872; W. J. Jones, Madras S.C., Aug. 11, 1872; A. J. P. Ewart, Madras S.C., Aug. 14, 1872; E. A. Saunders, Madras S.C., Aug. 14, 1872; A. G. Davidson, Madras S.C., Aug. 14, 1872; and W. C. Clarke, Madras S.C., Oct. 3, 1872. Major and Brevet Lieut. Col. F. Hammersley, half pay, late 14th Foot, and Assist. Qrmr. Gen. at Aldershot; Jan. 1, 1873. Lieut. Col. R. D. Kerr, Royal Engineers; Jan. 22, 1873.

The following promotions to take place in succession to Major Gen. G. W. Mayow, C.B., who died on Jan. 1, 1873:—Brevet Col. J. T. Airey, C.B., from Lieut. Col., half pay, late Coldstream Guards, to be major gen., March 6, 1868; such antedate not to carry back pay prior to Jan. 2, 1873; Capt. D. Stewart, half pay, late Ceylon Rifle Regiment, and Staff Officer of Pensioners, to be major; Jan. 2, 1873.

The undermentioned promotion to take place in her Majesty's Indian Military Forces, consequent on the death of Lieut. Gen. Henry Hancock, Bombay Infantry, on Dec. 30, 1872:—Col. S. F. Macmullen, Bengal Cavalry, to be major gen. in the East Indies; Dec. 13, 1872.

Memoranda.

The undermentioned officers retire from the service, receiving the value of their commissions:—Lieut. Col. and Brevet Col. A. L. Peel, half pay, late 52nd Foot; Major and Brevet Lieut. Col. R. Young, half pay Depôt Battalion; Lieut. Col. R. S. Colls, half pay, late 32nd Foot; Major and Brevet Lieut. Col. J. T. Craster, half-pay, late 38th Foot; Capt. J. D. Travers, half pay, late 17th Foot; Lieut. K. Browne, half pay, late 44th Foot; Lieut. O. F. James, half pay, late 3rd West India Regiment.

THE MILITIA GAZETTE.

War Office, Pall Mall, Jan. 31.

Where not otherwise specified the following commissions and announcements bear date Feb. 1, 1873:—

Royal Bucks (King's Own)—Capt. R. J. F. Edgcumbe resigns his commissions, Nov. 3, 1872.

Cambridge—Arthur Jn. Adams, gent., to be lieut. (supy.).

Royal Denbigh—Lieut. T. A. Montessor resigns his commission.

2nd Derby—The Hon. F. C. J. Foley to be lieut. (Supy.).

Dorset—Lieuts. J. H. Thompson and H. Mansfield resign their commissions.

The Essex Rifles—Lieut. G. G.

Whitehead resigns commission.

3rd Royal Lancashire — Major and Hon. Lieut. Col. M. J. Fielden resigns commission, and is permitted to retain his rank, and to wear the uniform on retirement; Sutherland Dumbreck, gent., to be lieut.

Royal Merioneth—Lieut. C. E. M. Edwards resigns commission.

Royal Monmouth—Lieut. J. A. Metcalfe to be capt., vice Tyler, resigned.

Royal Montgomery—Capt. H. Nicholls is granted the honorary rank of Major.

Oxford — Joseph A. Henley, gent., to be lieut. (supy.).

East York — Major J. D. F. Fawsitt resigns commission, also is permitted to retain his rank, and wear the uniform on his retirement. Capt. C. J. Lynch and J. Bolland resign commissions.

5th West York—Capt. A. Tyrrell resigns commission.

Royal Wiltshire—Capt. T. Holman resigns commission.

Fife Artillery—Fredck. Craigie Halkett, gent., from the 1st Royal Lanark Militia, to be lieut.

1st Royal Lanark—Lieut. F. C. Halkett resigns commission. Augustus Murray, gent., to be lieut. (supy.).

Ross, Caithness, Sunderland, and Cromarty—Surg. W. Brydon, C.B., resigns commission.

Stirling, Dumbarton, Clackmannan, and Kinross—Capt. E. Grogan is granted the honorary rank of Major.

Royal Dublin City—Lieut. J. J. O'Gorman to be capt., vice McDermott, deceased.

Kerry—Lieut. T. Sandes to be capt., vice Stokes, resigned.

Limerick County—William McLaughlin, gent., to be lieut. (supy.).

Memoranda.

So much of the notice which appeared in the *London Gazette* of Aug. 9, 1872, as relates to Capt. Sir W. R. Clayton, Bart., is cancelled.

Yeomanry Cavalry.

Duke of Lancaster's Own—Frederick Platt, gent., to be cornet (supy.).

2nd West York — Major S. Waterhouse resigns commission, also is permitted to retain his rank, and wear the uniform; Capt. J. Foster to be major, vice Waterhouse; Lieut. J. M. Sager-Musgrave to be capt., vice Foster; Cornet W. H. Foster to be lieut., vice Sager Musgrave.

Royal Wiltshire—Capt. H. C. Keith, Marquis of Lansdowne, resigns commission.

THE VOLUNTEER GAZETTE.

War Office, Pall Mall, Jan. 31.

Where not otherwise specified, the following commissions and announcements bear date Feb. 1, 1873:—

1st Caithness-shire Artillery—Second Lieut. W. Reid to be first lieut.

3rd Cambridgeshire Rifles—Lieut. H. H. Ley to be capt.

4th Cheshire Rifles—Lieut. A. Fergusson to be capt., vice Mayer, resigned; Ensign D. Walford to be lieut., vice Fergusson.

8th Cornwall Artillery—Francis Harvey, Esq., to be capt., Oct. 6, 1872.

8th Derbyshire Rifles—Lieut. E. A. Dyke to be capt.

23rd Devonshire Rifles—Robert James Wilson, gent., to be ensign.

1st Adm. Batn. Dumbarton Rifles—The appointment of Capt. and Adj. Currie to bear date Sept. 18, 1872, instead of Sept. 21, 1872.

1st Edinburgh Artillery—Secd. Lieut. D. F. Park to be first lieut.; James Ritchie MacGibbon, gent., to be first lieut., vice Melville, resigned.

1st Edinburgh Rifles—Capt. J. Macdonald resigns commission.

3rd Essex Artillery—John Wm. Lasham, gent., to be second lieut.

12th Essex Rifles—Rev. F. B. Shepherd to be acting chaplain.

3rd Herefordshire Rifles—Ensign H. W. C. Griffin resigns commission.

5th Adm. Batn. Kent Rifles—Thomas S. Usborne, Esq., Capt. 40th Kent Rifles, to be lieut. col.

34th Kent Rifles—Wm. Arundell Rouse, gent., to be ensign.

105th Lancashire Rifles—Capt. W. McK. Cameron and Lieut. A. A. Jamieson resign commissions; Lieut. M. M. Currie to be capt.; Lieut. J. Clark to be capt.; Ensign W. W. Mutter to be lieut.; Ensign W. Thompson to be lieut.; Ensign E. D. Dunlop to be lieut.; Ensign J. R. Reid to be lieut.; William McKenzie Cameron, gent., to be qrmr

15th Lancashire Rifles—Wm. Townshend, gent., to be ensign.

40th Lancashire Rifles—Lieut. G. W. R. Wood to be captain; Ensign T. Gill to be capt.; Ensign H. F. Cutler to be lieut., vice Sudlow, resigned; Thomas Holmes Baxter, gent., to be ensign.

23rd Middlesex Rifle—Lieut. E. James to be capt., vice Turner resigned.

40th Middlesex Rifles—Thomas Henry Phillips, gent., to be qrmr.

1st Midlothian Artillery—First Lieut. George A. Pantou, to be capt.

1st Nairn Artillery—William Fraser, Esq., to be capt.; Capt. W. Fraser to bear the title of Capt. Com.; Second Lieut. J. Duffus to be capt.

1st Newcastle-on-Tyne Artillery—Capt. H. J. Angus resigns commission.

1st Newcastle-on-Tyne Rifles—Ensign J. C. Drury to be capt.

1st Norfolk Rifles—Lieut. J. F. Ransom to be capt.; Ensign W. T. Clabbourn to be lieut., vice Bolingbroke resigned; Ensign G. C. Grimmer to be lieut., vice Ransom promoted.

3rd Norfolk Rifles—Lieut. W. Matthews to be capt.; Ensign R. Leamon to be lieut., vice Matthews promoted.

5th Nottinghamshire Rifles—Leonard Milward Parkinson, gent., to be ensign.

11th Perthshire Rifles—Lieut. J. Clark to be capt.

18th Somersetshire Rifles—Wm. de Blaquiére, Esq., to be capt.

2nd Surrey Rifles—Frank Augustus Morgan, gent., to be ensign.

1st Sussex Rifles—Capt. F. Hallett to be major.

1st Sussex Rifles—Captain F. Hallett to be major; Lieut. H. Abbey to be capt.; Ensign T. J. Verrall to be lieut.; Assist. Surg. E. J. Hart resigns commission.

18th Sussex Rifles—Capt. Sir P. Burrell, Bart., resigns commission; William Blackford Woodard, Esq. to be capt., vice Burrell.

1st Tower Hamlets Rifles—The promotion of Assist. Surg. Woodforde to be surgeon, on Feb. 17, 1872, and his resignation of that appointment and re-appointment as Assist. Surg., on Jan. 1, to be cancelled.

16th Wiltshire Rifles—Capt. W. V. Rolleston resigns his commission.

1st North York Artillery—Hy. Hunt Brand, gent., to be second lieut., vice Ellefson, promoted.

4th North York Rifles—The Hon. Amias Lucien Orde Powlett to be lieut., vice W. T. O. Powlett, resigned.

1st West York Artillery—Secd. Lieut. H. E. Dolan to be first lieut., vice Cumpston, who resigns; Richard Varley, gent., to be qrmr.

2nd West York Artillery—First Lieut. D. G. Law to be capt.; Second Lieut. A. W. Lassen to be first lieut.

6th West York Rifles—Capt. J. T. Beaumont resigns his commission; William Thomson, jun., gent., to be ensign, vice Wigney, promoted.

THE ARMY GAZETTE.

War Office, Pall Mall, Feb. 7.

7th Hussars—Major Gen. C. Hagart, C.B., from the 11th Hussars, to be col., vice Gen. Sir John Scott, K.C.B., deceased; Jan. 19.

11th Hussars—Major Gen. C. Steuart, C.B., to be col., vice Major Gen. C. Hagart, C.B., removed to the 7th Hussars; Jan. 19.

India Office, Feb. 5.

Her Majesty has been pleased to approve of the following admissions to the Staff Corps, made by the Governments in India:—

BENGAL STAFF CORPS.

To be Lieuts.—Lieuts. E. W. Chalmers, 11th Regiment; Feb. 25, 1871. A. S. McRae, 36th Regi-

ment; March 22, 1871. W. H. Salmon, 109th Regiment, March 31, 1873. A. P. Thornton, 36th Regiment; Sept. 8, 1871.

BOMBAY STAFF CORPS.

To be Lieuts.—Lieuts. P. C. Heath, 45th Regiment; July 23, 1869. H. C. E. Lucas, 107th Regiment; Aug. 21, 1899. F. M. Kirk, 104th Regiment; Sept. 15; 1869. F. D. Raikes, 66th Regiment; May 3, 1871. H. E. Penton, 11th Regiment; Oct. 3, 1871. R. H. Daniell, 3rd Hussars; Oct. 6, 1871. C. W. Hinde, 83rd Regiment; Oct. 25, 1871.

THE MILITIA GAZETTE.

War Office, Pall Mall, Feb. 4.

Where not otherwise specified, the following commissions and announcements bear date Feb. 5, 1873:—

Royal Berkshire—Lieuts. W. H. Morland, W. M. C. Pechell, and G. B. Eyre to be capt.

Cornwall Rangers—Lieut. F. Coryton resigns commission.

7th Royal Lancashire—James Fleming Falls, gent., to be lieut.

5th Royal Middlesex—Richard James Caldwell Young, gent., late Lieut. 6th Dragoons, to be capt. Lieuts. J. A. Warren and R. Child to be capt.

1st or West Norfolk—Lieut. F. S. Marsham resigns commission.

Northumberland Artillery—Lt. H. B. H. Hamilton to be capt. The services of Lieut. L. G. Watson are dispensed with.

1st Royal Tower Hamlets—Lieut. C. Thompson to be capt., vice Bennett, resigned. Lieut. A. W. à Beckett to be capt., vice de Salis, promoted.

1st Warwick—Martin Henry Drayson Lister, gent., to be lieut., vice Andrewes, resigned.

Royal Wiltshire—Captain W. Black to be major, vice Breton, resigned.

2nd West York—Lieut. H. S. Severne resigns commission.

3rd West York—Frank John de Vie Beamish, gent., to be lieut.

5th West York—Lieut. F. H.

Seymour to be capt., vice Tyrrell, resigned. Frederick Holdsworth Brondbent, gent., to be lieut., vice Seymour.

Argyll and Bute—Frederick Bryan Browne, gent., to be lieut. (supy.).

Dumfries, Roxburgh, Kircudbright, and Selkirk—Lieut. Col. the Hon. H. B. Johnstone resigns commission, also is granted the hon. rank of col., and is permitted to wear the uniform of the regiment on retirement.

Fife Artillery—Surg. W. Bouthrone resigns commission, also is permitted to wear the uniform of the regiment on retirement.

Armagh—Capt. W. Mayne resigns commission.

Royal Cork City Artillery—David Goold, gent., to be lieut. (supy.).

Kilkenny—Captain E. F. E. Gerahty resigns commission.

The Prince of Wales' Royal Regiment of Longford Rifles—Augustus Pakenham Fitzgerald West, gent., to be lieut. (supy.).

YEOMANRY CAVALRY.

Middlesex—Lieut. E. Robert Spearman to be capt., vice Rickards, promoted. Francis Burrell Massingberd, late Capt. 5th Lancers, to be lieut., vice Legg, resigned. Cornet A. A. Smith to be lieut., vice Piper, promoted. Cornet D. G. H. Gordon to be lieut., vice Spearman.

Staffordshire—John Baddeley Wood, gent., to be cornet (supy.). James Heath, gent., to be cornet (supy.).

THE ARMY GAZETTE.

War Office, Pall Mall, Feb. 11.

Where not otherwise specified the following commissions and announcements bear date Feb. 12, 1873:—

1st Dragoon Guards—Capt. A. Hutton retires from the service, receiving the value of his commission.

2nd Dragoon Guards—Henry Baron Hoey, gent., to be sub. lieut., in succession to Lieut. Rutt-

ledge, promoted in the 3rd Dragoon Guards.

3rd Dragoon Guards—Capt. J. Norton retires from the service, receiving the value of his commission. Lieut. J. K. Rutledge, from the 2nd Dragoon Guards, to be capt., vice Turner, retired. Assist. Surg. T. S. Barrow, M.D., from the 23rd Foot, to be assist. surg., vice R. H. Bolton, who exchanges.

3rd Hussars—Capt. H. R. Pim retires from the service, receiving the value of his commission. Lieut. R. H. Daniels receives the value of a Cornetcy, on final transfer to the Indian Staff Corps.

5th Lancers—Jas. Fredck. Love Russell, gent., to be sub. lieut., in succession to Lieut. E. C. Baker, deceased.

10th Hussars — Lieut. E. S. Watson retires from the service, receiving the value of his commission.

11th Hussars—Charles James Robarts, gent., to be sub. lieut., in succession to Lieut. Preston, promoted in the 14th Hussars.

15th Hussars — Lieut. C. G. Cookson retires from the service, receiving the value of his commission.

20th Hussars—Paymr. and Hon. Capt. C. Loder, from half pay, late 20th Hussars, to be paymr.; Dec. 24, 1872.

21st Hussars—Capt. H. Coghlan retires from the service, receiving the value of his commission. Charles Hotham Purvis, gent., to be sub. lieut., in succession to Lieut. Coghlan, promoted.

Royal Artillery — Capt. E. V. Boyle, from the Supernumerary List, to be capt., vice A. M. Bonar, deceased; Jan. 3, 1873. Lieut. A. Lavie (late Madras) to be capt., vice C. E. Pritchard deceased; Dec. 1, 1872. Capt. C. H. Campbell (late Bombay) to be adjt., vice A. M. Bonar, deceased. Lieut. H. T. T. Sandes, from temporary half pay, to be Lieut., vice A. J. Lavie (late Madras) prom. Lieut. J. Revill, from the Coast Brigade, to be Qrmr., vice M. Robinson, who retires upon tem-

porary half pay. Lieut. H. S. Ford has been permitted to resign his commission Jan. 3, 1873. Assist. Surg. I. McD. O'Farrell, from the 108th Foot, to be assist. surg., vice C. S. Close, seconded on appointment as Surgeon to his Excellency the Governor of Bombay.

1st Foot—Lieut. E. G. Gyll retires from the service, receiving the value of his commission. Sub Lieut. H. L. Hallewell to be lieut.; Oct. 28, 1871. Sub Lieut. G. H. B. Coats to be lieut.; Oct. 28, 1871. Sub Lieut. G. B. H. Read to be lieut.; Oct. 28, 1871. Sub Lieut. A. W. L. Rickards; Dec. 30, 1871.

The surname of the Quartermaster Sergeant promoted to be Quartermaster in the *Gazette* of Oct. 4, 1873, is Swiney, and not Sweeney, as then stated.

5th Foot — Capt. and Brevet Lieut. Col. W. McDonald retires from the service, receiving the value of his commission.

6th Foot—Warren Thomas Peacocke, gent., to be sub lieut., in succession to Lieut. Kitchener, promoted.

7th Foot—Qrmr. M. Slattery, from the 38th Foot, to be Qrmr., vice T. Metcalf, who exchanges.

8th Foot—Staff Assist. Surg. R. Blood, M.D., to be assist Surg. vice A. H. L'Estrange, appointed to the Staff.

10th Foot — Capt. A. Fraser retires from the service, receiving the value of his commission.

11th Foot — John Woodville Jones, gent., to be sub lieut., in succession to Lieut. Beevor, retired.

The undermentioned officers receive the value of their ensigncies on final transfer to the Indian Staff Corps:—Lieut. E. W. Chalmers; Lieut. H. E. Penton.

13th Foot — Anthony Lumb, gent., to be sub lieut., in succession to Lieut. King, retired.

16th Foot — Sub Lieut. W. H. Riddell to be lieut.; Dec. 30, 1871. Sub Lieut. F. R. Bell to be lieut.; Dec. 30, 1871.

20th Foot—Captain W. F. F. Gordon to be major, vice E. M. Jones, deceased; Jan. 24, 1873. Lieut. F. W. Barlow to be capt., vice Gordon; Jan. 24, 1873.

23rd Foot—Lieut. J. T. C. Reilly retires from the service, receiving the value of an ensigncy. Assist. Surgeon R. H. Bolton, from the 3rd Dragoon Guards, to be assist. surg., vice T. S. Barrow, M.D., who exchanges.

24th Foot—Lieut. G. J. S. Toler retires from the service, receiving the value of an ensigncy.

25th Foot—Paymr. and Hon. Capt. E. Gibbs resigns his commission; Jan. 1, 1873.

27th Foot—Henry Catano Mar-don de Castro, gent., to be sub lieut., in succession to Lieut. Hoban, retired.

33rd Foot—James Coulton, gent., to be sub lieut., in succession to Lt. G. M. Hayes, retired.

37th Foot—Lieut. G. M. Leeds retires upon temporary half pay.

38th Foot—Qrmr. T. Metcalf, from the 7th Foot, to be qrmr., vice M. Slattery, who exchanges.

40th Foot—Capt. and Brevet Major W. Fisher retires from the service, receiving the value of his commission.

42nd Foot—Capt. W. Underwood retires from the service, receiving the value of his commission.

43rd Foot—Lieut. G. St. J. Colthurst retires from the service, receiving the value of his commission.

45th Foot—Major G. C. Close retires from the service, receiving the value of his commission.

52nd Foot—Sub. Lieut. W. H. Odell to be lieut.; Dec. 30, 1871.

56th Foot—Lieut. W. F. H. Jones to be capt., vice R. T. Thompson, made Supernumerary whilst employed as a Captain Instructor at the School of Musketry, Hythe; Dec. 31, 1872. Lieut. W. R. Knox retires from the service, receiving the value of his commission; Lieut. J. D. Lysaght, from half pay, late 66th Foot, to be lieut., vice Jones.

57th Foot—Lieut. W. W. Brownjohn, from half pay, late 2nd Foot, to be lieut., vice Jeffares, promoted half pay Capt.

59th Foot—Montagu William Battye, gent., to be sub lieut., in succession to Lieut. E. H. Sartorius, made Supernumerary whilst employed as an Instructor at the Royal Military College.

60th Foot—Capt. E. H. Ward retires from the service, receiving the value of his commission; Lieut. C. G. Fryer to be capt., vice Hubrey Vere O'Brien, retained as Supernumerary in his regiment on being appointed Adjutant of the Clare Militia; Jan. 2, 1873.

62nd Foot—Capt. L. G. Dundas retires from the service, receiving the value of his commission. John Frederic Inglis, gent., to be sub lieut., in succession to Lieut. Poole, retired.

63rd Foot—Capt. H. M. Parkerson, from the 99th Foot, to be capt., vice Hill, who exchanges.

64th Foot—Major and Brevet Lieut. Col. H. Francis retires upon full pay; Lieut. Fitz G. Trant, from the 72nd Foot, to be lieut., vice McDougall, transferred to the 72nd Foot.

65th Foot—The undermentioned officers retire from the service, receiving the value of their commissions:—Lieut. Col. R. H. MacGregor and Capt. J. H. G. Holroyd.

66th Foot—Lieut. F. D. Raikes receives the value of an ensigncy, on final transfer to the Indian Staff Corps.

68th Foot—Capt. C. C. Hood retires from the service, receiving the value of his commission.

72nd Foot—Lieut. J. McDougall, from the 64th Foot, to be lieut., vice Fitz G. Trant, transferred to the 64th Foot.

74th Foot—Capt. J. F. Darvall retires from the service, receiving the value of his commission.

79th Foot—James Maitland Munt, gent., to be sub lieut., in succession to lieut. Shaw-Kennedy, retired.

83rd Foot—Lieut. C. W. Hinde

receives the value of an ensigncy, on final transfer to the Indian Staff Corps; Hew Francis Cadell, gent., to be sub lieut., in succession to Lieut. Parry, retired.

87th Foot—Lieut. C. W. Wildman to be adjt., vice Lieut. Leadbitter, promoted in the 97th Foot; Dec. 4, 1872.

97th Foot—Richard Charles Mansfield Elwes, gent., to be sub lieut., vice Hassard, transferred to the 66th Foot; Lieut. H. Cummings to be Instructor of Musketry, vice Lieut. J. C. Cantley, who has resigned that appointment; Jan. 15, 1873.

99th Foot—Capt. M. D. Hill, from the 63rd Foot, to be capt., vice H. M. Parkerson, who exchanges; Sub Lieut. G. C. J. Johnson, from the 97th Foot, to be sub lieut., in succession to Lieut. Cooch, retired.

108th Foot—William Arthur D'Oyly Mealy, gent., to be sub lieut., vice F. B. Dawes, deceased; Staff Assist. Surg. A. H. Authonisz, M.B., to be assist. surg., vice O'Farrell, appointed to the Royal Artillery.

109th Foot—Capt. E. S. Beville retires upon the half pay pension of his rank.

1st West India Regiment—Lieut. F. A. Stewart retires upon temporary half pay.

2nd West India Regiment—Lieut. H. Reed retires from the service, receiving the value of his commission.

Staff—Lieut. Col. and Brevet Col. S. G. Jenyns, C.B., half pay, late 13th Hussars, to be assist. adjt. gen. at head quarters, in succession to Lieut. Col. and Brevet Col. A. J. Herbert, C.B., half pay, unatt., whose period of Staff service has expired; Jan. 1, 1873.

Medical Department—Staff Assist. Surg. J. Gray to be Staff Surg., vice M. L. Burrows, M.D., retired upon temporary half pay; Staff Assist. Surg. U. B. Eaton, M.D., from half pay, to be staff assist. surg., vice J. Gray, promoted; Assist. Surg. A. H. L' Estrange, from the 8th Foot, to

be staff assist. surg., vice R. Blood, M.D., appointed to the 8th Foot; Staff Assist. Surg. W. Armstrong, half pay, resigns his commission, Jan. 10, 1873; Staff Assist. Surg. J. T. Milburn retires upon temporary half pay, Jan. 24, 1873.

Royal Military Asylum—Major Hugh Mackenzie, from half pay, late 15th Foot, to be adjt.

Brevet.

Major and Brevet Colonel T. H. Clifton, retired upon full pay, late Aide-de-Camp to H.R.H. the Field-Marshal Commanding-in-Chief, to have the honorary rank of major gen.

The following promotions to take place consequent on the death, on Jan. 18, 1873; of Gen. Sir J. Scott, K.C.B., Col. of the 7th Hussars:—Lieut. Gen. G. H. MacKinnon, C.B., Col. 26th Foot, to be gen., Jan. 19, 1873; Major Gen. M. W. Smith, C.B., Colonel 20th Hussars, to be lieut. gen., Jan. 19, 1873; Brevet Col. W. H. Bradford, from Lieut. Col. half pay, late Royal Canadian Rifles, to be major gen., March 6, 1868, such antedate not to carry back pay prior to Jan. 19, 1873; Maj. H. E. Wood, V.C., 90th Foot, to be lieut. col., Jan. 19, 1873; Capt. W. T. Baker, 12th Foot, to be major, Jan. 19, 1873.

The undermentioned officers, having completed the qualifying service with rank of Lieut. Col., to be cols.:—Lieut. Col. T. H. Sibley, Bengal S.C., June 13, 1872; Lieut. Col. T. H. Stoddard, Madras S.C., Oct. 26, 1872; Lieut. Col. F. R. Glanville, Royal Artillery, Dec. 29, 1872; Lieut. Colonel W. L. Dumaresq, Royal Artillery, Jan. 1, 1873; Lieut. Col. A. Bunny, Royal (late Bengal) Artillery, Jan. 10, 1873; Capt. and Brevet Maj. J. Y. Holland, retired Royal Marine Light Infantry, to have the honorary rank of lieut. col., Jan. 13, 1873; Major and Brevet Lieutenant Col. H. Francis, retired full pay, to have the honorary rank of col.

The undermentioned Warrant Officers to have honorary rank as follows:—

To be capt.—Lieut. and Dep. Comm. A. Norman, Bombay Establishment, Aug. 12, 1870; Lieut. and Comm. W. Goslin, Bombay Establishment, Aug. 3, 1872; Lieut. and Dep. Comm. J. Matthews, Bengal Establishment, Oct. 14, 1872.

To be lieuts.—Ens. and Assist. Comm. A. Norman, Bombay Establishment, Aug. 6, 1868; Ens. and Assist. Comm. J. Henderson, Bombay Establishment, Aug. 3, 1872.

Memoranda.

Major and Brevet Colonel T. H. Clifton, half pay, unattached, and Aide-de-Camp to H.R.H. the Field Marshal Commanding-in-Chief, retires upon full pay.

The undermentioned officers retire from the service, receiving the value of their commissions:—Lieut. Col. the Hon. D. C. Finch, half pay, late 24th Foot; Major and Brevet Lieut. Col. W. E. D. Deacon, half pay, late 54th Foot.

The undermentioned officers have been permitted to commute their retired allowance:—Captain R. N. Young, retired from the Royal Artillery on a special annuity, Dec. 6, 1872; Qrmr. and Hon. Capt. J. Stalford, half pay, late 2nd Foot, Oct. 16, 1872; Hon. Comm. Gen. L. Routh, half pay, late Commissariat Department, Jan. 7, 1873.

THE MILITIA GAZETTE.

War Office, Pall Mall, Feb. 11.

Where not otherwise specified, the following commissions and announcements bear date Feb. 12, 1873:—

Royal Cardigan—Surgeon T. James resigns commission.

1st Royal Cheshire—Captain H. R. Worthington resigns commission; Nov. 23, 1872.

3rd Royal Lancashire—Captain J. F. Leese resigns commission.

6th Royal Lancashire—Randall Brereton Hooper, gent., to be lieut.

7th Royal Lancashire—Major T. R. Bridson resigns commission, is permitted to retain his rank, and wear the uniform on retirement.

1st Norfolk—Maj. G. Marsham resigns commission.

Nottingham—Lieutenant J. M. Davidson resigns commission.

2nd Somerset—Capt. D. Mac-liver resigns commission.

1st Stafford—Willoughby Wood, gent., to be lieut.

2nd Royal Surrey—Charles D. Hodgson, gent., to be lieut.

3rd Royal Surrey—B. Morier, gent., to be lieut. (supy.); A. M. Hamilton, gent., to be lieut. (supy).

Royal Sussex—Captain H. Bethune resigns commission, is granted the honorary rank of maj., and is permitted to wear the uniform on retirement.

2nd Royal Tower Hamlets—Lieut. T. T. S. Carlyon resigns commission; Jan. 5, 1873.

Royal Wiltshire—Major J. L. Reed resigns commission, is permitted to retain his rank, and to continue to wear the uniform on retirement.

East and North York Artillery—Lieut. W. Bethell resigns commission.

Antrim Artillery—Lieut. H. B. Johnston to be capt., vice Hannay, promoted.

Royal Dublin City—Lieut. R. McG. Cashel resigns commission.

Galway—Col. U. J., Marquis of Clanricarde, resigns commission; Ulick John, Marquis of Clanricarde, late Col., to be hon. col.

Yeomanry Cavalry.

Shropshire—Lieut. A. C. Arkwright to be capt., vice Wright, resigned.

Westmoreland and Cumberland—Capt. B. Edmonds, half pay, late 2nd Dragoon Guards, to be adjt., vice Franklin, placed on a retired allowance, Jan. 23, 1873; Adj. B. Edmonds, to serve with the rank of capt.

Royal Wiltshire—Lieut. W. H. Viscount Dangan, to be captain, vice the Marquis of Lansdowne, resigned.

1st West York—Lieut. Col. J. Brown resigns commission, is permitted to retain his rank, and to wear the uniform on retirement; Cornet J. Charlesworth resigns commission.

The following officers proceed to Dublin on Tuesday to join the School of Instruction, Richmond Barracks: viz., Majors O'Callaghan and Paterson, Clare; Captains J. Graham and T. Andrews, Tipperary Light Infantry; Captain W. Lynam, 5th Lancashire; Lieuts. Hall, Creagh, and MacMahon, Clare; Lieut. W. H. Grat-tan, Kildare Rifles; and Lieut. F. E. Thornhill, Louth Rifles.

War Office, Feb. 14.

Where not otherwise specified the following commissions and appointments bear date Feb. 15, 1873.

Cambridge—Lieut. W. E. Frost resigns commission.

Royal Denbigh—William F. Tipping, gent., to be lieut.

2nd or South Devon—Lieut. C. E. Day resigns commission.

Devon Artillery—William S. Birdwood, gent., to be lieutenant (supy.).

2nd or North Durham—Attiwell Henry Wood, gent., to be lieut.

The Essex Rifles—Thomas Winslow, gent., late Ensign, 72nd Foot, to be lieut. (supy.).

2nd Royal Lancashire—Lieut. W. J. Blundell resigns commission; Oct. 5, 1857.

3rd Royal Lancashire—Lieut. C. R. Byrne resigns commission.

7th Royal Lancashire—Capt. E. Houlditch to be maj., vice Bridson, resigned.

Leicester—Major J. Knight resigns his commission, also is granted the honorary rank of Lieut. Col., and is permitted to continue to wear the uniform of the regiment on his retirement.

Royal London—Octavius T. Hearne, gent., to be lieut.

3rd Royal Middlesex—Lieut. G. A. C. Elliott resigns commission.

5th Royal Middlesex—Robert Edward Watts, gent., to be lieut. (supy.).

Shropshire—Lieut. Colonel E. Corbett is granted the honorary rank of col.

3rd Royal Surrey—Lieut. R. de Salis resigns commission.

Royal Sussex—Lieut. H. C.

Bridger to be capt., vice Bethune, resigned. William Arthur Hoare Smith, gent., to be lieut. (supy.).

2nd West York—Henry Trafford, gent., to be lieut. (supy.); Feb. 15, 1873.

Louth—Lieut. Col. Sir J. S. Robinson is granted the honorary rank of col.

Yeomanry Cavalry.

Duke of Lancaster's Own—Captain S. C. Compton, Marquis of Hartington, resigns commission.

Leicestershire—Lieutenant J. H. Douglass resigns commission. Lieut. F. H. Peget resigns commission. Cor. H. E. Hole resigns commission.

THE ARMY GAZETTE.

War Office, Pall Mall, Feb. 18.

Royal Regiment of Artillery—Lieut. R. A. Salmond retires upon temporary half pay; Feb. 19, 1873. Sergt. Maj. Robert Hamilton Murdoch to be qrmr., for employment in the Royal Artillery Record Office; Feb. 19, 1873.

Brevet.

Lieut. Col. G. Le M. Tupper, Royal Artillery, having completed the qualifying service with the rank Lieut. Col., to be col.; Feb. 2, 1873. Paymr., with the honorary rank of Capt. H. W. Vyner, Royal Artillery, to have the honorary rank of major; June 16, 1872.

India Office, Feb. 17.

Her Majesty has been pleased to approve of the undermentioned promotions amongst the Staff Corps and of H.M. Indian Military Forces made by the Governments in India:—

Brevet.

To be capt.—Lieuts. R. McMe-miney, Bengal Infantry; Oct. 26, 1872. A. Chaplain, Madras Infantry; Nov. 12, 1872. G. Lecky, Madras Staff Corps; Nov. 12, 1872.

Substantive Promotions.

BENGAL STAFF CORPS.

To be capt.—Lieuts. (Brevet Capt.) G. Alexander; Nov. 27, 1872. (Brevet Capt.) R. J. Wim-berley; Nov. 29, 1872.

BENGAL ARMY.**Medical Officers.**

To be surgs.—Assist. Surgeons E. J. Hoskins, M.D.; Oct. 1, 1872. J. C. Shaw, Oct. 1872. J. W. Johnston, M.D.; Oct. 1, 1872. J. Cameron, M.D.; Oct. 1, 1872. J. G. Pilcher; Oct. 1, 1872. S. Mackertish; October 1, 1872. A. Neil; Oct. 1, 1872. J. G. French, M.D.; Oct. 1, 1872. R. T. Lyons, Oct. 1, 1872.

MADRAS STAFF CORPS.

To be majors—Capts. J. Lidderdale, Dec. 9, 1872; H. G. Puckle, Dec. 9, 1872; and A. T. Cox, Dec. Dec. 10, 1872.

MADRAS ARMY.

Late 7th Light Cavalry—Lieut. (Brevet Capt.) H. G. de L. Groves to be capt., Oct., 1872.

Medical Officers.

To be surgs. major—Surg. J. M. Joseph, M.D., Nov. 20, 1872; Surg. E. S. Cleveland, M.D., Nov. 1872.

BOMBAY ARMY.**Medical Officers.**

To be surg. major—W. J. Moore, Nov. 20, 1872.

THE VOLUNTEER GAZETTE.

War Office, Feb. 18.

Where not otherwise specified, the following commissions and announcements bear date Feb. 19, 1873:—

1st Adm. Brigade Argyllshire Artillery — Frederick Campbell, Esq., to be major.

3rd Cambridgeshire Rifles—Lieuts. A. Hende Roughton and A. Lord Inverarie and Ens. H. G. Willacy resign commissions. Ens. J. D. S. Sim to be lieut., vice Glen, promoted. John Abercrombie, gent., to be ens., vice Sim, promoted.

1st Carmarthenshire Rifles—W. Maitland Stewart, gent., to be ens.

22nd Cheshire Rifles—George Okell, gent., to be acting assistant surg.

15th Derbyshire Rifles—Rev. A. A. Wilmot to be acting chap.

3rd Durham Rifles—Edward M. Turnbull, gent., to be ens.

7th Durham Rifle Volunteer Corps—Capt. Comm. J. Monks resigns commission; Captain C. Rowlandson to bear the title of capt. comm.; Hon. Chap. Rev. G. R. Bulman resigns commission.

1st Edinburgh Artillery — C. Mackay, gent., to be sec. lieut.

1st Edinburgh Rifles—Capts. J. S. Morton and John McDuaig and Ens. G. Barnes resign commissions.

1st Adm. Bat. Fife-shire Rifles—George Clerke Cheape, Esq., to be major.

1st Adm. Brig. Gloucestershire Artillery — Arthur Blunt, Esq., Major 1st Gloucestershire Artillery to be major.

16th Gloucestershire Rifles—Ens. the Hon. E. Noel resigns commission.

1st Haverfordwest Rifles—Edward Picton Phillips, gent., to be acting assist. surg.

4th Isle of Wight Rifles—Capt. A. F. Leeds resigns commission; Ens. W. H. Wooldridge to be capt.

26th Kent Rifles—Lieut. Hudson resigns commission; Herbert Harrison Rudd, gent., to be ens.

5th Kirkcudbright Rifles—H. Smith, gent., to be surg.

32nd Lanarkshire Rifles—John Howie, gent., to be ensign, vice Muir, resigned,

43rd Lanarkshire Rifles—Ens. G. Shaw resigns commission; W. Napier Dick, gent., to be ensign, vice Shaw, who resigns.

56th Lanarkshire Rifles—Lieut. J. Steel to be capt.; Ens. T. B. Ralston to be lieut., vice Steel, promoted; William Greig, gent., to be ensign, vice Ralston, promoted.

105th Lanarkshire Rifles—Lieut. Col. F. Reid to bear the title of Lieut. Col. Comm.; George C. Mutter, gent., to be ens.

1st Lancashire Engineers—Rev. Edward Newenham Hoare, B.A., to be acting chap.

1st Lancashire Rifles — Hon. Assist. Surg. S. Drielsma to be qrmr.

5th Lancashire Rifles—Ens. W. H. Davison to be lieut.; Ens. H. P. Gray resigns commission; C. Alfred Howard McPherson, gent., to be ens.

6th Lancashire Rifles—Joseph Sewell, gent., to be ens.; Alfred Quenterry Currie, gent., to be ens.

7th Lancashire Rifles—Ens. C. H. Walmsley to be lieut.

31st Lancashire Rifles—Hon. Qrmr. J. W. Blackburne to be qrmr.

2nd Leicestershire Rifles—James Wright, gent., to be acting assist. surg.

2nd Lincolnshire Artillery—First Lieut. E. Smith to be capt.; Sec. Lieut. A. Bannister to be first lieut.

1st London Rifles—Lieut. E. S. Palmer resigns commission.

2nd London Rifles—Archibald Donaldson, gent., to be ens.

2nd Middlesex Artillery—Sec. Lieut. C. H. Farrow resigns commission.

1st Middlesex Engineers—Capt. C. H. Driver resigns commission.

13th Middlesex Rifles—Rev. W. Bazeley, M.A., to be acting chap.

18th Middlesex Rifles—Lieut. C. F. Holmes resigns commission.

19th Middlesex Rifles—Captain T. Parker resigns commission.

26th Middlesex Rifles—Captain H. Burton resigns commission.

28th Middlesex—Lieut. R. D. O'B. Evans to be capt.

29th Middlesex—Henry Richard Heathcote, gent., to be ens.

36th Middlesex Rifles—Adj. J. Clarke to serve with the rank of capt.; Francis Dunnigton Fletcher, gent., to be ens., vice Hatch, resigned.

38th Middlesex Rifles—Ens. H. Lucas resigns commission.

39th Middlesex Rifles—William Richard Hurford, gent., to be ens.

46th Middlesex Rifles—William Frind Charles Burlton-Bennet, Esq., to be lieut. col.

10th Monmouthshire Rifles—Capt. T. W. Rhodes, Lieut. W. West, and Ens. G. B. Robathan resign commissions.

1st Nairn Artillery—Charles D. Malcolm, gent., sec. lieut.

4th Norfolk Rifles—James B. Forrester, gent., to be ens.

1st Oxfordshire Rifles—Ens. E. J. Elgood to be lieut., vice Sebastian, promoted.

3rd Oxfordshire Rifles—Lieut. R. H. Field to capt.; Ens. I. Griffin, to be lieut.

1st Adm. Bat. Pembrokehire Rifles—Edward Picton Phillips, Esq., to be surg.

17th Suffolk Rifles—Charles J. Lucas, gent., to be ens.

1st Adm. Brigade Sussex Artillery—Charles Smith Hannington, Esq., to be hon. col.; Major J. W. Silverthorne to be lieut. col., vice Hannington resigned.

1st Sussex Artillery—Charles Smith Hannington, Esq., to be hon. col.; First Lieut. J. Hannington and Hon. Qrmr. G. Duddell resign commissions.

1st Sussex Rifles—Macdonald Hall, Esq., late Capt. and Adj. 5th Lancashire Rifles, to be adj.; Adj. Hall to serve with the rank of capt.

1st Tower Hamlets Rifles—Lieut. Col. J. Samuda resigns commission.

6th Tower Hamlets Rifles—Ens. W. N. Bennett to be lieut.

4th East York Artillery—Sec. Lieut. W. H. Kruger to be first lieut.; Second Lieut. T. W. F. Rowney to be first lieut.

3rd East York Rifles—Henry Morris, gent., to be acting assist. surg.

1st North York Artillery—H. Dobbs, gent., to be sec. lieut.

14th North York Rifles—William C. Booth, Esq., to be capt.

15th West York Rifles—Ens. W. Myers to be lieut.

25th West York Rifles—Charles Stanfield, jun., gent., to be ens.

THE VENTILATION OF HORSE-TRANSPORTS.*

If the renewal of the air is a necessity in all habited places where salubrity is to be maintained, still more emphatically is it requisite on board ship, and especially in vessels intended to convey large numbers of troops and horses on distant voyages and in hot latitudes. The mail steamers that plough the Indian Ocean and its neighbouring seas have not escaped the difficulty, and the Companies running them have for a good many years adopted simple and efficacious appliances on the principle of those employed in the sanitation of dwelling-houses.

It should be observed that as early as 1836, some time before the era of the more distant expeditions that have since rendered a careful study of the question indispensable, attempts were made to improve the sanitary condition of Military Transports, by placing ventilating fanners, worked by hand, over the several hatchways.

The effects thus produced were small, and efforts were made to increase them by combining the use of these fanners (putting in motion about 7,000 cubic metres of air per hour) with that of air-pipes, by which the air was distributed between the decks, entering close to the horses' heads.

In 1855, the lamentable consequences that befell during the Crimean campaign, when, nevertheless, the greater part of the horses were carried in merchant vessels, which could only take a few between-decks and in passably-well ventilated holds, attracted the attention of the Minister of War, and a Veterinary Committee (*Commission d'Hygiène hippique*) was appointed to ascertain the best methods of avoiding these serious inconveniences.

One of the most experienced members of this Committee, Renault, our old and lamented *confrère*, declared that the question of the space allowed to each animal appeared to him to be of secondary importance, provided, always, the horses were not exposed to severe contusions; the most essential point, he asserted, was to give as much fresh air as possible; the better fitted for respiration the air, the fewer would be the casualties so justly complained of.

Renault, it will be seen, asked for the horses what Baudens, at the very same time, was praying for unceasingly in the military hospitals in the east—air—air—always, more air.

More distant expeditions, like those to Mexico, China and Cochin, showed so clearly the deplorable results of the want—often the utter want—of renewal of the air in vessels expressly designed to carry troops, and horses particularly, that the attention of the Government was seriously called to a difficulty which had not made itself so much felt in earlier expeditions, when the

* Abridged from *Comptes Rendus*, 3rd Feb., 1873. *Rapport sur un Mémoire présenté à l'Académie par M. Bertin, Ingénieur de la Marine*. By General Morin.

horses were shipped in smaller vessels, each carrying but a few on a single deck.

In the Mexican expedition, three batteries—one of field artillery, one of marine artillery, and a mountain battery—were embarked at Cherbourg, on the 28th January, on board the 'Amazone' steam frigate, and 150 to 160 horses were placed between decks. The captain of the field battery had with him a very competent veterinary surgeon and a very devoted *personnel*. Pumps had been fitted on board, so that both the horses and the decks could be washed. But, in spite of these precautions, the air, more especially within the tropics, became so impure as to infect every part of the vessel.

Between the 28th January and the 15th February, the day of arrival at Santa Cruz, Teneriffe, that is to say, during the first nineteen days on board ship, 29 horses died.

Between the 18th February, the day of departure from Santa Cruz, and the 9th March, the day of arrival at Martinique, also a period of nineteen days, 21 horses died.

The loss thus amounted to 50 horses out of between 150 and 160; or to about 30 per cent.

Another artillery officer, who served in the expeditions to China and Cochin China, expressed himself on the subject of the transport vessels there employed in the following terms:—

"All the arrangements that came under my notice were very bad; the most obvious defects were these—

"1. Want of fresh air, and the impossibility of supplying it with the means provided—windsails.

"The extreme difficulty, not to say the impossibility, of cleaning the lower deck, where the horses stood.

"Great difficulty for the horses to keep their legs, even in fair weather.

"The passages from Shanghai to Saïgon lasted from twenty to twenty-five days. Numerous cases of congestion occurred, arising from the want of air and the suffocating smell between decks. The collection of so many animals within a limited space rendered the atmosphere unsupportable, and indeed almost intolerable. The stable-guards were relieved every two hours, and then but with difficulty could keep their posts."

We will conclude this preliminary portion of our Report by giving an idea of the difficulties encountered on board vessels designed expressly for transports, as exemplified in the case of the 'Calvados,' whose arrangements are the most perfect of any yet carried out, and thus described by M. l'Ingénieur de la Marine, Bertin:—

"In this vessel the troop accommodation and stabling is in three tiers (*entre-ponts*), the main deck, the lower deck, and certain portions of the hold (*plate-formes*)—the latter only existing at the extremities of the vessel, the central portion being occupied by

the engine-room and boilers, the heat in the neighbourhood of which has been found dangerous to the animals. On the main deck are accommodated the commanding officers and état-major of the troops, and the ship's company; there are also stalls for 84 horses. It is pretty well ventilated by hatchways and ports, which are always kept open at sea.

"The lower deck, where at sea the ports are often closed on account of their proximity to the water, is fitted to receive 140 horses in two lines, one on either side of the vessel. Down the centre runs a longitudinal gangway, ventilated by numerous hatchways, and serving as sleeping berths for passengers. It is always unwholesome, often dangerously so," and M. Bertin gives a painful illustration in the case of the 'Garonne,' sister ship to the 'Calvados,' during her passage from Suez to Saïgon in 1862, when four persons, including a naval officer, a commissary of marine, and a Sister of Mercy died of heat-apoplexy.

"The hold is fitted for 76 horses. There are no ports, and but few hatchways; neither light nor fresh air find their way thither; consequently, during long voyages and in hot latitudes, the horses die off in considerable numbers. *Arrangements adopted.*—To keep the interior of the vessel in a salubrious condition; it is therefore necessary to ventilate both the lower deck and the hold.

"The lower deck, with a capacity of 1,550 cubic metres, holding 148 horses, gives an average of $\frac{1550}{148} = 10.40$ cubic metres of air per horse.

"2. The hold, containing 76 horses, gives an air space of $\frac{650}{76} = 8.55$ cubic metres per horse."

It should be stated, that in army stables on shore, where according to the regulations the doors and windows should always be open, and where the horses are taken out for air and exercise daily, 50 cubic metres of space is allowed per horse.

It will be readily understood that this reduction of the space was absolutely necessary, but the need of obviating the evils thence arising was not slow to manifest itself; and after the lamentable results of our first distant expeditions, the attention of the Minister of Marine was seriously directed to the question of the Ventilation of Horse-Transports. A project prepared by M. Bertin was approved in 1866, and ordered for immediate execution. It was not completed, however, until 1872.

In this project, taking as his basis the data obtained by a member of our committee in the stables of the General Omnibus Company at Paris, M. Bertin at first assumed that the volume of air requiring renewal at the head of each animal hourly was 180 to 200 cubic metres; but the scantiness of the space at his command led him subsequently, in the actual execution, to limit the allowance to 150 cubic metres per head, per hour, for 224 horses stabled between decks; this would give 33,600 cubic metres of air to be evacuated hourly, which, as the whole space between the

decks is only 2,200 cubic metres, supposes the complete renewal of the air fifteen times in the course of each hour. Abundant as this supply may seem, if we take into consideration the numerous sources of infection and insalubrity existing in a space so cabined and confined, it must be allowed that it is not more than is actually required.

It should be observed, also, that this vessel may be used for carrying troops alone, in which case 800 men would be lodged between decks. An allowance of 33,600 cubic metres of air per hour would correspond to 40 cubic metres per man in the same time, less than is allowed in hospitals in spacious and carefully kept wards.

Rejecting any idea of employing mechanical means for the purpose, and confining himself exclusively to the effects of currents of air produced by differences of temperature, M. Bertin, guided by experience, has devoted his attention chiefly to the evacuation of the vitiated air, contenting himself with facilitating the entrance of the fresh air from without by a simple plan based on natural causes and effects. A few words will suffice to give an idea of his arrangements.

"The vitiated air passes out through scuttles formed in the inner planking—technically known as the skin (*vaigrure*) of the ship's sides.

"The spaces between the frames (known to French shipwrights as *les mailles*) serve as escape-conduits for the vitiated air aforesaid.

"As in many buildings, the draught is from above downwards, the spaces between the frames acting in pairs—one set for the ventilation of the lower deck, the other for that of the occupied portions of the hold. In all, 102 of these spaces are thus utilized—68 for the lower deck and 34 for the hold. The sectional area of each of these spaces increases somewhat towards the lower part. It is 0·0550 square metres at the level of the lower deck scuttles, and 0·0600 square metres at the level of those in the hold. The aggregate sectional area of the passages thus provided for the escape of the vitiated air is 5·77 cubic metres, corresponding to 0·0465 square metres for horses, to provide 33,600 cubic metres per hour, or 9,333 cubic metres per second, which is equivalent to a draught of 1·62 cubic metres per second.

"The scuttles have the same width as the spaces between the frames; their actual area is 0·0680 square metres on the lower deck, and 0·0750 square metres in the hold, but the iron gratings, with which they are fitted, reduce the air-passages to an area about the same as that of the spaces themselves.

"The descending conduits open into four air-chambers placed in the angles of the hold—the parts most difficult to turn to account for stowage. These have a sectional area proportionate to the number of the spaces between the frames with which they communicate. Their total sectional area is 5·80 square metres where they meet in pairs, at the level of the chimney, in a single

transverse conduit running athwart-ships between the fore and after boilers. These horizontal conduits open into the space between the uptake and the outer shell of the chimney. The escape of the air takes place through this space, which is divided into two parts—one for the fore and the other for the after boilers. The shell is carried up to the summit of the chimney, 20 metres (65 ft.) above the level of the fire bars. The sectional area of the passage is 5·80 square metres, corresponding with a mean average draught of 1·60 metres per second, which can be readily increased, if required, or a smaller chimney may be used. When under steam, the waste heat of the chimney, as will presently be seen, suffices for all the purposes of ventilation. In port, or under sail, two small furnaces, one on either side between the boilers, serve to regulate the draught, and, under exceptional circumstances, may be used to increase the ventilation. The fire-surface of these small furnaces is 0·48 square metres; they are provided with a small chimney one metre high, which, however, appears to us of small utility. The fresh air enters principally by the hatchways, owing to the draught produced by the evacuation of the foul air; it may be augmented by the use of eight wind sails placed on deck, which distribute the air between decks and in the hold by means of horizontal pipes, the sides of which are pierced with holes, and formed of canvas, so to admit of their temporary removal when the horses are embarking and disembarking. The aggregate sectional area of these eight wind sails is 1·50 square metres. They must be regarded as simple auxiliaries to the hatchways themselves.

“According to observations made during a light breeze, the velocity of the air in these wind sails is from one-third to one-half of that of the wind. In some cases a portion of the mouths may be closed. It may be observed that the action of the wind sails, which is next to nothing in ordinary cases, is much increased by the artificial draught below.”

From this description of the arrangements in force on board the ‘Calvados’ transport, it will be seen that this draught is produced by the waste heat of the chimney and of the ordinary furnaces; whilst, in port or under sail, it is produced by the action of the two small auxiliary furnaces.

The arrangements were tested in port at Cherbourg, and, consequently, without the assistance that the action of the fires would have given under steam. It was found that the draught in the escape-conduits was much more irregular than it would be at sea.

But, in spite of this defect, it has been found possible to deduce therefrom some important considerations, of which we have now to speak.

M. Bertin allows that the mean temperature of the air evacuated through the chimney must be determined by multiplying together the temperature and the velocity at certain points, adding the products, and dividing this sum by the sum of the velocities.

This rule is only admissible on the supposition that the densities of the several currents prevailing at different parts of the chimney's section are pretty nearly equal to each other and to their arithmetical mean. It gives a mean temperature differing but little from the arithmetical mean of all the temperatures observed.

In order to compare the results with those hitherto obtained, M. Bertin has compared them with the well-known formula :

$$U = K \sqrt{T - t}$$

in which the velocity of the air escaping through a chimney is considered as directly proportionate to the square root of the excess of the temperature within the chimney over that of the outside air.

He admits, besides, that the waste heat of the chimney should be found in the evacuated air, with the exception of a small fraction (which may be disregarded) expended in the mechanical effort. On this hypothesis, the proportion subsisting between the mean average velocity of the air evacuated by the chimney, U , and the increase of temperature in the latter, represented by

$$T - t_0,$$

t_0 being the temperature of the air below decks, varies directly with the amount of fuel consumed in the auxiliary furnaces, with the aid of which the heat was produced in port, in a calm, during the aforesaid experiments.

He expresses this hypothesis by the formula,

$$U. (T - t_0) = MW.$$

in which, W = weight of fuel consumed, and M a constant for each description of fuel, the value of which, according to the experiments performed on board the 'Calvados' was 1.322. The only experiments which have as yet permitted a comparison to be instituted between the results given by the formula just indicated and those obtained in practice, were executed by the projector, at Cherbourg, during a calm, in the month of July, 1872.

The results are subjoined :—

Volume of fuel burned per hour.	Mean velocity per second.	Volume of air evacuated.	Volume of air evacuated per kilogs. of fuel burned.
20	1.45	30,400 cubic m.	1,520 cubic m.
30	1.44	30,200 „	1,007 „
40	1.66	34,700 „	867 „
Excess of the temperature in the chimney over that of outer air.	Coefficient of the formula $U = K \sqrt{T - t}.$		Value of Coefficient $M.$
14°.4 cent.	0.384		1.100
16°.9 „	0.381		0.960
18°.8 „	0.385		0.920
Mean,		0.373	0.993

This table shows :—

1. That under rather unfavourable circumstances, and in the absence of a breeze, on board an inhabited vessel, and without the assistance of any waste heat from the engines, it was possible, with 20 kilogrammes of fuel, to produce the evacuation of 30,400 cubic metres of air per hour, answering to 135 cubic metres of air per horse per hour, *i. e.* a complete renewal of the air below 13·8 times in the hour, supposing the air space allowed for each horse to be 155 cubic metres.

2. That the mean velocity of the vitiated air thus evacuated, as primarily ascertained by experiments on chimneys, follows the law that this velocity varies directly with the square root of the excess of the temperature within the chimney over that of the outer air.

3. That in practice these results are best given by the formula :

$$U = 0.373 \sqrt{T-t};$$

whilst in ordinary chimneys it is,

$$U = 0.54 \sqrt{T-t}.$$

4. That *M* in the projector's formula, which, on the supposition that all the heat developed will be found in the evacuated air, should have a value of $M = 1.332$, in these experiments was only 0.993; *M* being thus reduced to 0.735 of its hypothetical value.

We believe that we shall be always nearer the truth, in cases like the 'Calvados,' if we employ the formula,

$$U = 0.373 \sqrt{T-t}.$$

5. It was also shown by other experiments in regard of arrangements more or less simple, that there is always an advantage, economically, in producing the draught required for ventilation with a moderate temperature—for example, the combustion of 20 kilogrammes of coal per hour gave an average evacuation of 1,520 cubic metres of air per kilogramme, whilst 40 kilogrammes per hour gave only 867 cubic metres of air per kilogramme of fuel.

This is in accordance with the well-known fact that it is always better to enlarge the section of a chimney than to attempt to increase the draught by augmenting the heat; and showed that the dimensions adopted by the projector are not exaggerated.

OBSERVATIONS RESPECTING THE TWO FORMULÆ ABOVE REFERRED TO.—It need hardly be said, that the formula first given for the determination of the mean velocity of the air evacuated by the chimney,

$$U = K \sqrt{T-t},$$

is very easy of application when previous experiments have enabled us to ascertain beforehand the value of *K*, which, in the case in question, was 0.373.

Whatever may be the nature of the fuel employed, whether it

be coal, good, bad, or indifferent, or even wood, as sometimes happens in distant voyages, it will be sufficient to note the temperatures within the chimney and in the external air, so as to deduce from the formula the mean velocity of the air per second, and, consequently, the volume evacuated by the chimney, by multiplying this velocity into the sectional area of the passage.

A common thermometer will enable the ship's commander to ascertain and regulate the amount of ventilation, so that the difference between the temperatures of the chimney and the outer air, $T-t$, may be constant, which will ensure uniformity of effect.

With the second formula, to which the projector seems disposed to give the preference, the case is different. Although its accuracy appears to have been confirmed, at least approximately, by experiment, it must be observed that, besides general causes, such as *vis inertia*, loss of mechanical effort through friction, and loss of heat by radiation, which in the aforesaid experiments reduced the value of the coefficient, M , from 1.322 to 0.993, there will be, in all longish voyages, variable causes, the effects of which cannot be ascertained; and amongst them the nature and quality of the fuel, which directly influences the value of this coefficient, will have a preponderating effect.

This second formula, although correct enough in principle with the material corrections supplied by experiment, does not appear to us as practically useful as the former, which is at once more simple, more convenient, and is confirmed, besides, by other numerous and varied experiments.

M. Bertin, multiplying the two formulæ just given into each other,

$$U^2 = K^2(T-t), \text{ and } U(T-t_0) = MW,$$

and assuming that the temperature between decks, t_0 , to be equal to that of the external air, which, in an inhabited vessel, is only admissible on the supposition that the cooling effect produced by the contact of the water with the hull counterbalances the heat generated by the living beings within, obtains the formula,

$$U^3 = KMW, \text{ or } U = \sqrt[3]{K^2MW}.$$

From this he concludes that, in any system of ventilation of this sort, *the average velocity of evacuation, and, consequently, the quantities of air evacuated increase with the cube roots of the quantities of fuel consumed.*

Comparing the results of this formula, which may be put in the form

$$Q = SU = S \sqrt[3]{K^2MW} = B \sqrt[3]{W}$$

(S being the sectional area of the chimney, and K and M the quantities already designated), with the experiments executed by

me in 1862, in respect of the ventilation produced by burning gas in an ordinary chimney, we obtain the results shown in the annexed table, where the volume Q is expressed in square metres, and the weight of the fuel W is replaced by the amount of gas burned, in litres:—

Volume of gas burned per hour. W .	Volume of air evacuated per hour by the action of the gas. Q .	Value of B .	Remarks.
218 litres.	. . 394	45.46	
333 "	. . 602	"	Anomaly.
967 "	. . 587	59.36	
2,636 "	. . 874	63.27	
2,000 "	. . 771	61.19	
2,500 "	. . 845	62.74	
3,000 "	. . 903	62.71	
3,478 "	. . 935	62.91	

Mean, 62.50

These results show that the proposed formula is as much in accordance with actual observation as can be desired in such a case, but the objections I have made to it above are none the less applicable.

EFFECTS OF THE FORCE OF THE WIND ON VENTILATION.—The projector notes the increase of ventilation in ships at sea produced by a breeze of greater or less strength. This is a point which appears to me to require careful study, as, according to the arrangements adopted, its effects may be beneficial or otherwise.

Experience and common sense both tell us that a rapid current of air sweeping at a low angle over the debouch of a chimney, or of an air supply-pipe, must impede and sometimes arrest altogether the escape of the air in the former, and its entrance into the latter. In this point of view, a breeze would be unfavourable to the evacuation of the air through the chimney.

On the other hand, all currents of air which strike against plain or curved surfaces at rather high angles, and thus become checked on their onward progress, acquire thereby an increased pressure, which, in a moderately fresh breeze of six to eight metres per second, (twelve miles an hour), will amount to seven kilogrammes on the square metre. If these surfaces contain the orifices of one or more air-passages, the air in the latter will acquire a very considerable velocity amounting to fifteen to twenty metres per second.

We may verify this observation any day, even when the wind is light, in the corridors of large buildings—as of the Louvre. The ancient practice of suspending a sail above hatchways, wind-sails themselves, &c., all depend on the same principle. The pressure of the wind on the decks of vessels, and against the various objects with which it there comes in contact, results in a

heaping up of the air, producing an increased pressure below, and consequently an increased evacuation therefrom. This appears to be the true explanation of the beneficial effects of the wind, which sailors have long known how to utilize.

HEATING OF THE CHIMNEY UNDER THE INFLUENCE OF THE SUN.—It will readily be understood that the direct action of the sun on the wall of a chimney of cast-iron or iron-plate may often produce a notable increase of energy in the ventilation, particularly if the chimney be long.

Direct experiments made by one of our number have shewn, that even in Paris this action on the surface of a pipe 0 m. 18 (6 in.) in diameter, and two metres in height, surmounting a brick chimney eight metres high; sufficed sometimes to produce an upward draught, with a mean velocity of 0 m. 60 per second. There is every reason, therefore to believe, that within the tropics the ventilation of ships would have a very useful auxiliary in the action of the sun on the conducting surface of the iron plate forming the chimney's envelope. The first experiments made at Cherbourg, on 18th June, at an ordinary summer temperature, and with a light breeze, confirm the supposition; but we must not lay undue stress on the point, as the effect is felt by the strata of air on one side of the chimney only.

RESUMÉ OF RESULTS.—Although the experiments performed at Cherbourg form but a portion of the observations requisite to enable us duly to estimate the influence of arrangements similar to those of the 'Calvados' on the sanitation of horse-transport; still, as they were carried out under conditions less favourable than those of an ordinary voyage—that is to say, without the concurrence of the wind and the additional heat produced in the chimney when the vessel is under steam, we may deduce from them the following conclusions:—

1st. That according to the arrangements adopted, and the height of the chimney, and without any assistance in the shape of artificial heat, a natural process of ventilation may be maintained, which is highly favourable to the durability and healthiness of vessels with wooden hulls; and which, with a fresh breeze, may be increased to 16,000 cubic metres per hour.

2nd. That with small fires in the furnaces—much smaller than those required to keep up the steam, a renewal of the air at the rate of 41,000 cubic metres per hour, or 183 cubic metres per stall hourly, can be obtained.

3rd. That the auxiliary furnaces, which are intended for use in harbour, or under sail, or to assist in increasing the ventilation under unfavourable circumstances when under steam, with a consumption of 30 to 40 kilog. (78 to 104 lbs.) of coal per hour, will, by themselves, assure the renewal of the air at the rate of 35,000 to 40,000 cubic metres per hour.

In the absence of any experiments under steam, in which the

heat from the boilers, and also from the galleys and baking-places, would be turned to account, we may ascertain, approximately, the effects thus obtainable.

We know that according to a law discovered by Newton, and proved by direct experiment, the volume of heat per hour and per square metre traversing an envelope of their iron-plate is expressed by formula $C = 10 (T' - T)$ caloric, in which 10 may be regarded as a minimum co-efficient; T' , the temperature in the chimney of the machine; and T . in the ventilating chimney.

The value of T' often rises in the chimneys of steam engines to 300° Cent., (let us take it at 250° Cent. only); that of T in the month of July, according to experiment, does not exceed 40° to 41° , (we will take it at 50° Cent.)

According to these data, the amount of heat passing through each square metre of the chimney's surface would be :

$$C = 10 \times 200 = 2,000 \text{ calories per hour.}$$

The chimnies are, at least, 4 metres round, by 20 metres high, which would give 160 square metres of surface to each.

The amount of heat passing through would therefore be $160 \text{ square metres} \times 2,000 = 32,000 \text{ calories.}$

Supposing that the coal used in the experiments only gave 7,500 calories to the kilogramme, the amount of heat produced, as above, would have the same effect as the combustion in the furnaces of $\frac{32000}{7500} = 42.66$ kilog. of coal.

We have taken no account here of the waste heat of the cooking and baking places.

This energetic action of the engine chimnies will probably enable us, in the majority of cases, to dispense with the use of the auxiliary furnaces and the expenditure of fuel expressly for purposes of ventilation.

The salubrity of the vessel, whilst under steam, will be thus maintained gratuitously.

EXPENSE.—We have now to compare the cost entailed by arrangements, such as above supposed, with the pecuniary advantages resulting from their adoption.

On board the 'Calvados,' which had been finished before, the expenditure was as follows:—

	Francs.	£	s.	d.
Windsails	3,900	162	10	0
Alterations in magazines and hold (this item would be omitted in the case of a new vessel)	5,000	208	6	8
Collectors, additions to chimney, extra furnaces (including 3,500frs. for altering the old chimney) . . .	20,700	862	10	
	<hr/> 29,600	<hr/> 1,233	<hr/> 6	<hr/> 8

	Francs.	£	s.	d.
Brought forward	29,600	1,233	6	8
From which sum would have to be deducted, in the case of a new vessel, 5,000 + 3,500frs. . . .	8,500			

Total cost of ventilating arrangements in a new vessel 21,100 879 3 4

Now, supposing the auxiliary furnaces to be in use during thirty days of the voyage, which is the number for which they are supplied with fuel, and a very exaggerated estimate, the average consumption being, at most, 30 kilog. per hour; the total expense will be $30 \times 30 \text{ kilog.} \times 24 \text{ hours} = 21.6 \text{ tons of coals}$, which, at 30frs., will be 648 frs.

In the voyages above referred to, as many as 25 per cent. of the total number of horses carried, or fifty-six out of 224 lodged below, were lost on more than one occasion. Taking 600 frs. as the average remount price of each horse, and the expenses of carriage to Mexico being estimated at a like sum per head, we have, in these cases, a cash loss of 67,200 frs. on a single voyage.

The cost of the ventilating arrangements, and of the extra fuel, would thus be covered by the saving on the horses, leaving a wide margin besides.

The mere renewal of the air, even at the high temperatures prevailing in the southern seas, affords sensible relief to the passengers. It would not be difficult to combine therewith some provision for cooling the air in moderation, which would enable us to maintain, in the saloons and cabins, a temperature some degrees between that of the atmosphere. Four or five degrees would suffice; more might involve danger. Suitable means of providing for such an arrangement exist; but this is not the place to indicate them.

DRAWBACKS AND INCONVENIENCES.—If the arrangements, as above described, reduce to a certain extent the stowage room of the vessel; if the increased size of the chimney—which we believe might be a good deal reduced—interferes with the working of the main-sail, these inconveniences, which might be greatly lessened in new vessels, appear to us unworthy to be weighed against the great and unquestionable advantages of an abundant and regular renewal of the air in vessels where existence has hitherto been a punishment and an ever-present danger to all animated beings.

MEMORIALS OF THE SERVICES OF THE ROYAL HORSE-GUARDS.

Than the Royal Regiment of Horse-Guards, there is no corps in the British Army possessing a higher claim to represent the ancient chivalry of England. From the first period of their existence down to the present day, they have always claimed to be pre-eminently the representatives, in an unbroken line, of the mail-clad knights of antiquity. The nature of their service, and the peculiar features of the first organisation of the regiment tend to render indisputable their claim to this honourable ancestry. Called into existence at the period when the old feudal army was disbanded as quite unsuited to the demands of the times, and at the moment when the fell power of a democratic army had heaped untold agony on the aristocratic classes, and by revulsion of feeling had, in turn, fallen into disgust; the Blues were, in the very nature of things, aristocratic to the last degree. The creation of a King, who, having wandered as a fugitive from the sharp swords of democracy, had but just been restored to the throne, they were enrolled as a body-guard, whose special duty it was to keep down democracy. And of all the King's subjects, who were so likely to furnish recruits suitable for this purpose as those old Cavaliers, who had given their swords to his father, as their ancestors had given their swords to his father's ancestors, from the conviction that the nobility and gentry of England were, in person, bound to defend the King of England as the mainspring and centre of their dignity as well, and the chief and monarch of their race. They whose forefathers had been knights and warriors in the purest of the knightly days, and who themselves had struggled with knightly bravery and devotion in the cause of the ill-fated monarch, Charles I. were the men chosen to raise and lead the regiment. And so from the very birth-time of the regiment, the Blues have been in the hands of the most ultra royalists of the aristocracy and gentry.

The time and circumstances of the establishment of the regiment, are, as we have said, the reason why it should be so. The especial duty of the corps, the one, indeed, for which it was created, was, as we have seen, to guard the person of the King, and ensure the stability of the throne. Even in the quietest time, with society settled and tranquil, such a duty, so long as the old feudal divisions of society are allowed to exist, is obviously the duty of gentlemen; but when those divisions had to be maintained against the most violent opposition; when society was upheaved, and the seeming tranquillity might burst into political confusion in a moment, it became an imperious duty of those, who would draw a sharp line between classes to be prepared to defend their position, and maintain their theory at any cost. They whose honour was reflected

from the King, should alone preserve the lustre of the mirror of their dignity. How well they have done their duty, faithfully and honourably like gallant gentlemen, is a story that shall never lose its charm so long as the doings of England's manhood are told as an example to future ages. It was, undoubtedly, they who set the example of high self-respect, fidelity and dignity; it was their influence which has taught the British soldier a good many of his virtues, and alas! nearly all his vices; but it was their code of honour which, so many years afterwards, taught one of the greatest of their children to answer in reply to a dishonourable remark made to him in Paris, when he was absolute master of that conquered city, "*avant tout je suis gentilhomme Anglais!*" and long may such a code continue. England owes her might and majesty to the valour of all her soldiers, to the ploughboy quite as much as to the peer, but she owes to the English gentleman and to him alone, the fact that the word of an English officer is a bond that any civilised foeman will take as current coin.

The Blues were established by Royal Warrant, dated 6th January, 1661. The parliament of that time, in a fit of economy as well as fear of an armed force, had ordered the disbandment of such of the forces as had remained; and for the most part, their orders had been carried out. The regiment out of which the Blues were mainly formed, a cavalry corps commanded by Colonel Unton Crooke, and called the Royal regiment, was disbanded at Bath, by Quarter-master-general Butler, in the middle of the previous December. Scarcely, however, were the men discharged, when the fanatic Venner, and his handful of imbeciles, the Fifth Monarchy men, threw the capital into a state of trepidation by their ridiculous insurrection. This batch of enthusiasts changed the policy of the parliament. More fearful lest the savage sectaries, who yet openly boasted of the virtues of Cromwell, and the glories of his days, should once more gain the upper hand, and shatter, in one moment of savage revenge, the fabric of monarchy that had been so painfully restored, than earnest in keeping down the expenses of the nation, and above all in protecting her constitutional liberty, the good old knights and squires accepted the army as the price that must be paid for the King. The Duke of York, dexterously seizing the opportunity, took occasion to propose "to the Council which was called in the time of the insurrection, that they should write to His Majesty, and desire him to stop the disbanding of the General's troop of Horse Guards and the regiment of Foot which were to have been paid off that day, and that he should rather think of raising more men for the security of his person and government. Daniel O'Neale was accordingly sent with an account to the King," then at Portsmouth, "who immediately gave orders for raising a new regiment of Guards of twelve companies, to be commanded by Colonel John Russel, and a regiment of Horse of

eight troops, of which the Earl of Oxford was to be Colonel, and also a troop of Horse Guards, to be commanded by the Lord Gerard." In conformity with this advice, a Royal Warrant was issued for the establishment of these regiments, from the 23th January, 1660-1. That to be commanded by the Earl of Oxford, and to consist of eight troops, was to have eighty men in the first troop, which His Majesty was graciously pleased to designate as "His Majesty's own Troop," the other seven troops to have sixty men in each, besides officers. An ample supply of old soldiers being at hand, it only required a few days to get the men enrolled and fit for such service as the moment demanded. The regiment was first mustered in Tothill Fields, Westminster, under the command of its Colonel, the Earl of Oxford, on the 16th February, 1661. It was then styled the "Royal Regiment of Horse;" and so long as it continued the only cavalry regiment in the King's service, it retained that title, but when other regiments were raised, it only retained its original distinction in official orders, being otherwise styled the "Royal Regiment of Horse Guards." The "Kingdome's Intelligence" of February 18, 1661, has preserved the first list of officers :

	Captain.	Lieutenant.	Cornet.	Quarter-master.
1st. Troop.	Daniel O'Neale.	William Basset.	Peregrine Bertie.	Robert Cooper.
2nd. "	Earl of Oxford.	T. Armstrong.	Edw. Sheldon.	W. Montgomery.
3rd. "	F. Wyndham.	G. Markham.	C. Wyndham.	Francis Byam.
4th. "	Lord F. Hawley.	Sir H. Jones.	W. Jenkyns.	Edward Hawley.
5th. "	Sir C. Compton.	F. Compton.	Henry Compton.	Flam. Colborne.
6th. "	Sir E. Brett.	John Arundel.	Henry Slingsby.	Jo. Young.
7th. "	Sir H. Wroth.	Thomas Morley.	John Elvis.	Gyles Forman.
8th. "	J. Fretchville.	Thos. Carnaby.	Ferd. Littleton.	G. Blackston.

Most of these men were of considerable distinction amongst the Cavaliers. Aubrey de Vere, 20th Earl of Oxford, and the last of his martial race, was an old Cavalier, who had learnt the trade of war on the Continent, in command of one of the English regiments in the service of Holland. Like himself, his subordinate officers were all Cavaliers, but although favouritism was the recognised principle upon which they were chosen, they were only such of the Cavaliers as could claim rank and recognition from the services they rendered to Charles I. in the hour of his sore need, and not merely from their social rank and illustrious ancestry. Francis Wyndham, the Major of the regiment, was the stubborn defender of Dunstar Castle, and the soldier who saved Charles II. in his flight from the battle-field of Worcester; of the Captains, Francis, Lord Hawley, had ridden, under Rupert, at the head of a troop of cavalry, raised by himself and at his own expense; Sir Charles Compton, second son of that Lord Northampton who fought at Edgehill, and died sword in hand at Hopton Heath, had himself surprised Beeston Castle, and afterwards dragged the Parliamentary soldiers out of their beds when they made a garrison of it; Sir

Edward Brett, one of the Cornish gentlemen, who, during the Civil War, "had done good service in that part of the country;" and John Fretchville of Staveley, one of the most daring and active troopers that Derbyshire gave to the King. The head-quarters of the regiment were established in London, but in those days when the Government possessed neither barracks nor any provision for the accommodation of a standing army, the several troops were scattered abroad in such quarters as could be conveniently found. On the 23rd April, 1661, the day of the King's Coronation, the King's troop was stationed at Newbury, Berks, "where the Mayor, to express his loyalty and joy, made a most gallant feast for the gentlemen of His Majesty's troop, under the command of that noble Colonel O'Neale, of His Majesty's Bedchamber."

The quarters of each of the other troops have not been exactly fixed, but though it was certain some of them were in London, it is equally certain that others were outlying. On the 3rd August following, the regiment was first called upon to perform its peculiar duty. The City of London was growing turbulent; the people were getting restive, and the time of trouble began to dawn. Pepys tells, "how basely things had been carried in Parliament by the young men, that did labour to oppose all things that were moved by serious men. That they are the most prophane swearing fellows that ever he heard in his life, which makes him think that they will spoil all, and bring things into a war again if they can." The times were certainly sad, and dissatisfaction rife everywhere. "At Court things are in a very ill condition, there being so much emulation, poverty, and the vices of drinking, swearing, and loose amours, that I know not what will be the end of it but confusion. And the clergy, so high that all people that I meet with do protest against their practice. In short, I see no content or satisfaction anywhere, in any one sort of people." In this state of things the Royal Regiment of Horse was sent into the city to maintain order. At that time the men were armed simply with swords, and although armour was still in general use, they were not provided with any. On leaving the city the regiment was again dispersed. On the 18th November we find Lord Hawley's troop at Coventry, which was turbulent, and whence Cornet Jenkins writes to the Earl of Oxford stating that the town is populous and arrogant, the mayor and the aldermen are loyal, but are overborne by Presbyterian and other sects. A rising against the Cavaliers was expected, but he will keep strong guard, and seize the suspected. Events, however, thickened there, for, on the 20th of December, Secretary Nicholas writes to Lieut. Sir Henry Jones, informing him that the king thanked him for his diligence in suppressing the late disorders in Coventry, and preventing the like in future, and requires him to keep the keys of the city until further orders.

The full equipment of the regiment does not seem to have been completed until the end of this year. On the 25th Nov. the king

issued a warrant to Col. W. Legge, lieutenant of the Ordnance, to deliver 520 back, breast and head pieces to Maj. Francis Wyndham, for the King's regiment of Horse Guards, under Aubrey, Earl of Oxford; and on the 8th December another warrant was issued to Sir William Compton, Master of the Ordnance, to deliver 441 carbines for the King's regiment of Horse Guards. The estimated cost of these carbines, with swivels and belts, was £661 9s. We cannot explain the reason why a greater number of suits of armour should be issued than arms, but the arms seem to have been immediately supplied to the regiment, for on the 14th January next a warrant was issued to William Legge to pay the above sum for that number of carbines, &c., issued "for the use of the King's Horse Guards, under Aubrey, Earl of Oxford." One or two changes took place in the regiment during the close of the year; on the 30th November Francis Compton was promoted captain in place of his brother, Sir Charles, Henry Compton became lieutenant, and Philip Sherrard "ensign in the said troop."

In 1662 the different troops occupied detached quarters, widely dispersed indeed as to themselves, but seldom any of them at a great distance from the metropolis—the entire regiment being rarely assembled, except for the purposes of review. The Earl's troop was quartered at Romford, in Essex, and towards the close of the year several of the troops seem to have been quartered in Dorsetshire. In October, reports of a rising in Dorsetshire caused the king to order "the lieutenants of neighbouring counties to meet, and the Horse Guards to attend, till the day appointed for the rising is past." On the 28th of that month Dr. Arris writes from St. Albans to Sir Edw. Brett, stating that a body of eighty or a hundred horse, saying they were going for the king and were for the State, tried to seduce some of the inhabitants to go with them. From this it is probable that Sir Edward's troop remained in the neighbourhood of the metropolis. The year was not a particularly active one for the regiment, its duties in London chiefly consisting in providing guards and patrols to check the turbulence of the citizens. On the 7th July, Robert Pocock, M.A., was appointed chaplain to the regiment; and in August, Lieut. Henry Compton was sent to Tangiers in the king's service.

For two years after its embodiment the history of the regiment, although the time embraces a period of national effervescence, was a somewhat monotonous record of duty, in scattered troops, in the neighbourhood of London, watching the malcontents. In January, 1663, the king's troop was quartered at Maidstone, on the 20th of which month "Lieut. Cooper, quartermaster of the king's troop," was ordered to proceed to Dover to receive Lord Wariston, and bring him prisoner to the Tower, which service he performed. In the summer, however, the Yorkshire revolt, known in history as the "Farnley Wood Plot," sent the regiment thither for the protection of order. Before this the whole regiment seems

to have been assembled in London, for on the 1st July, says Pepys, when "there was a general muster of the King's Guards, horse and foot," the Blues paraded five hundred troopers. The affair was a very grand one, and it was "a goodly sight to see so many fine horses and officers, and the king, duke and others come by a-horse-back, and the two queens in the queen-mother's coach (my lady Castlemaine not being there). After long being there, I light, and walked to the place where the king, duke, &c., did stand to see the horse and foot march by and discharge their guns, to show a French marquis (for whom this muster was caused) the goodness of our firemen; which indeed was very good, though not without a slip now and then, and one broadside close to our coach we had going out of the park, were to the nearness as to be ready to burn our hairs. Yet methought all these gay men are not the soldiers that must do the king's business, it being such as these that lost the old king all he had, and were beat by the most ordinary fellows that could be." Just one month after this, on the 3rd August, Col. John Fretchville was sent to York with two troops of horse and a company of foot to repress "the dangerous attempts of seditious conventicles." Considerable power was placed in the colonel's hands, who was to deal promptly and not leniently with offenders, most of them Cromwell's old soldiers, and a most dangerous class of conspirators; but so energetic was the colonel that his power had to be somewhat limited, for a short time afterwards we learn that "Mr. Secretary thinks it improper to make Col. Fretchville gamekeeper at York; being a military man he may use authority with more vigour than usual." Greater or smaller portions of the regiment continued in garrison at York for some time, but the command was soon changed, Lord Hawley being placed in his stead. On the 13th Dec. the colonel was ordered to send a corporal and six men to receive from the mayor of Newark Capt. Mason, formerly deputy-governor of Carlisle, and convey him safely to York, there to answer some things objected against him as a malcontent and a plotter. In November a troop of the King's regiment of Horse was stationed at Kingston, which troop we believe to have been Sir Edward Brett's, which was certainly stationed there in April, 1664.

On the 5th February, 1664, the king authorised Lord Hawley to command two troops of the Royal Regiment of Horse and three companies of foot to be sent to York, "the better to secure the peace of these parts from seditious conventicles." He was to obey the civil power. Which troops these were we do not know, but before the end of the summer half the regiment must have been in York. On the 30th July a commission similar to that of Lord Hawley was issued to Sir Edward Brett, "to command certain companies which are to be sent to York to rescue the country from the dangerous attempts of seditious conventicles;" and in the succeeding October we find that Sir Edward was governor of York. This change would arise from the promotion of Lord Hawley, on the 10th Nov., to the

captaincy of the King's Own troop of the regiment, Sir William Blackstone being appointed captain of Lord Hawley's troop on the 29th October. On the 23rd November, Rowland Selby was appointed quartermaster of the King's Own troop, under Lord Hawley.

The other troops occupied detached quarters. It appears that in January 1664 Major Wyndham's troop was in Dorking; in April the Earl's troop was in Reading, and, unless the troop has been malignèd, it had to some extent fallen off from its allegiance, for it was stated that several of the troopers "who pass for old Cavaliers are dangerous persons for carrying on designs." In July the king's troop was in London, and on the 14th of that month Capt. Basset, "officer in chief of the king's troop," was ordered to send a corporal and six troopers to convey Robert Atkinson and Richard Oldroyd, the leaders of the Farnley Wood Plot, from the Tower to Northampton, and there deliver them to the chief officer of Col. Fretchville's troop, who will convey them to York. Col. Fretchville's troop appears to have been at that time under the immediate command of Lient. Sir Thomas Carnaby, and engaged in keeping down insurrection and escorting political prisoners. In September and October the troop was at Staveley, and later at Derby. During this year a few other changes took place in the regiment. On the 5th May John Manley was appointed quartermaster to Sir Francis Compton's troop, and on the 7th Dec. a warrant was issued to Lord Albemarle to restore the King's Own troop in the Earl of Oxford's regiment of Horse Guards, lately reduced, from seventy to eighty effective men, and to continue it at that number. On the 13th June, Edwin Sandys was appointed cornet in Lord Oxford's troop.

Although the conspiracy of the old Puritan party in Yorkshire had been stopped, and the leaders dealt with in a most summary fashion, the king found it necessary to keep up a strong garrison in York, in order at once to overawe the party, and to place the county in a state of defence. On the 5th February, 1665, Lord Hawley was ordered to march from London to York, of which city he took the command, Col. Fretchville being sent down with his troop to Salisbury. The king's troop, on its march to York, took up its quarters at Leicester on the 9th February, upon which occasion "Capt. Basset, the officer in chief with the troop was solemnly invited by the mayor and aldermen of the town to a banquet, where they were not only treated with great freedom and generosity, but with many particular demonstrations of loyalty and affection—the mayor, in the name of the rest, making ample professions to the said captain, how great an honour they accounted it to have that occasion of paying a respect to any that belonged to His Majesty, and the said captain, on the other side, demeaning himself with an answerable civility and kindness." On the 28th June forty troopers were added to the colonel's troop, at a yearly expense of £1820; the troop, therefore, now contained one hundred troopers. On the 21st August the colonel, now Lord Fretchville, was ordered to take

command of the two troops of horse, and several companies of foot aggregated in these quarters for the old purpose of preventing the dangerous attempts of seditious conventicles, "obeying the orders of the Lord Lieutenant or the Secretaries of State, of the Duke of York whilst he remains in these parts, or of the Duke of Albemarle. From Salisbury the duke went to York, whence Lord Hawley writes on the 19th August, "The duke is pleased with the North. He was well received at Hull. I will not remove my troop from the country during His Highness's stay, unless on orders from Salisbury, for there is some apprehension of the fanatics."

The king was then staying at Salisbury, London being visited by the Great Plague. Whilst the Court was at Salisbury, the Duke of York had been sent into the North to make a personal inspection for military purposes, and to ascertain the depth of the still armed hostility to the monarchy. His Royal Highness, accompanied by the duchess, arrived at York on the 3rd August, 1666, and was received with much ceremony and every demonstration of respect. At a convenient place, a little remote from the city, were drawn up the troops of His Majesty's Guards, commanded by Lord Hawley, "which added much splendour to His Royal Highness's reception." On the 23rd September the duke and duchess returned southward to join the king, who was then holding his Court at Oxford. During the duke's stay in York the king's troop under Lord Hawley left York, and was replaced by Lord Fretchville's troop, which as the royal party left the city was drawn up in a convenient place without the walls to pay a farewell salute to the duke, which was answered by the cannon from Clifford's Tower. Within the city Major Waters and Capt. Jefferyes, the two officers of the Foot Guards, drew up their companies near the gate to form a guard.

Shortly after the duke's departure from York, Sir Thomas Carnaby, the lieutenant of Lord Fretchville's troop, "was suddenly stabbed by one Harland," but for what reason it is not known. On the 27th September he was succeeded by the cornet of the troop, Ferdinando Littleton, and was buried in York Cathedral on the same day, with a funeral pomp and solemnity that was but due to a person of his quality, loyalty and courage." Other appointments occurred during the year: on the 18th February, Morgan Jenkyns was appointed quartermaster of a troop, and on the 27th Edward Andrews was appointed quartermaster to Sir William Blackston's troop; on the 17th April, Philip Sherrard was promoted lieutenant, and Charles Adderley appointed cornet in Sir Francis Compton's troop.

The year 1666 was a more stirring one for the regiment; it was the year when the Dutch War was raging, and was one of some anxiety for England. In the beginning of June came the news that the Dutch were off Harwich. The king immediately sent down Lord Oxford to raise the counties and prepare to meet them. There is no doubt that some of the troops of the Blues were with the forces

"both of horse and foot," which were sent down the Thames to resist them. A few days later, on the 29th, two companies of the Admiral's regiment and a troop of the Blues passed through Harwich from Sudbury to Landguard Point, to reinforce the garrison of the fort, the infantry taking up their quarters in the fort, the Blues being quartered within two miles of it. The country was at this time thoroughly roused by the hostile doings of the Dutch fleet, and the reported invasion of the French under its protection. It is cheering to read of the manner in which our forefathers met the menaces. "The country hath with great vigour and activity put itself into a posture of defence; our guards are set, our beacons fixed, and all necessary provision made to oppose any sudden attempt of the enemy." During the whole summer the regiment was kept on the *qui vive*, for the country was getting into an excited state. As a contrast to the calmness described in the above paragraph, we have an account of the duty the Blues had to perform in London at a moment when frenzy seized the populace. On the 7th Sept., news arrived in London that the French and Dutch had landed, and were then marching on the city. "This report," says Evelyn, "did so terrify, that on a sudden there was such an uproar and tumult that they ran from their goods, and taking what weapons they could come at, they could not be stopped from falling upon some of those natives whom they casually met without sense or reason. The clamour and peril grew so excessive that it made the whole Court amazed, and they did, with infinite pains and great difficulty, reduce and appease the people, sending troops of soldiers and guards to cause them to retire into the fields again, where they were watched all this night."

In November Lord Fretchville's troop from York and Sir Edward Charlton's company of the Foot Guards from Hartlepool were ordered to march for Scotland, where an insurrection had broken out. The consternation brought about by this news was most serious. On the 28th Nov., the alarm in York was so great that the Lord Mayor forbade the citizens to stir out of their houses after 10 p. m. A part of Lord Fretchville's troop commenced its march on the 29th, and on the 30th passed through Penrith and Carlisle. His lordship stayed in York for the return of the other two parts of the troop which had been sent to London to guard the king's money waggons. In addition to this three troops were ordered up from Whitehall; and on the 3rd Dec. Sir Francis Compton's troop, which was stationed at Yarmouth, also started for York. The insurrection was however abortive, and quelled by the forces then in Scotland. On the 5th Dec., when the news arrived of the total defeat of the rebels, Lord Fretchville's troop was at Penrith, his lordship being still in York, where internal danger was suddenly found lurking and requiring his presence, even more than with his troop. The North of England was far from secure; troops had to be sent into the West Riding to awe the malcontents; and we learn that "the sending of

horse and foot to Leeds was a good act, for that is the most dangerous part of Yorkshire." At this time the king's troop was certainly doing duty at Whitehall.

During the year 1667 the regiment seems to have remained for the most part stationary in the quarters it occupied during the previous year, and seems to have not experienced many remarkable incidents in its service. On the 25th April the Earl of Burlington entered York in State as Lord Lieutenant of the city and West Riding of the county, being met by Sir John Reresby, the high sheriff, and the deputy-lieutenants of the West Riding, "with His Majesty's troop of Guards, commanded by Lord Fretchville." At his entry he was welcomed by the cannon from Clifford's Tower, and several volleys of shot from the foot companies, which were placed in their order to receive him. Other parts of the regiment were still occupied in protecting the southern and eastern parts of the kingdom against a possible invasion of the French and Dutch. On the 6th June the Dutch fleet, upwards of seventy sail, anchored at the Gunfleet, but no fears were then entertained, for "such care is taken by the extraordinary diligence and conduct of the Right Honourable the Earl of Oxford that, should they endeavour a descent, they will find them in a fit posture to receive them." The Dutch did, however, manage to get up the Thames, and burn the ships in the Medway. During the remainder of the Dutch War Lord Fretchville's troop continued at York, the remaining troops of the regiment being quartered in and about London, and in the country towns to the south and east of the metropolis. From this time until April, 1669, we know but little of the regiment and of its doings, and what we then learn comes from the pen of a foreigner an intelligent traveller who passed through the country and wrote an account of his journey. Cosmo, Duke of Tuscany, after travelling through Spain, visited England. Landing at Plymouth, he started thence for London, proceeding by easy stages. On the morning of the 13th April he left Salisbury, and thus describes his journey. "He discovered two miles from Basingstoke a troop of horse, excellently mounted, of the royal regiment of my Lord Aubrey de Vere, Earl of Oxford, commanded by his lieutenant. They came by the king's orders to attend upon and be at the disposal of His Highness, as was intimated to him by the commander, who, dismounting, came up to the carriage. His Highness, in reply, accepted only a small party, whom he sent to meet the baggage, and disarmed the rest. He then alighted to examine the military more closely, inspecting every file of the company, the officers of which wore a red sash with gold tassels, and receive as pay half a ducat a day. This regiment of the Earl of Oxford is composed of eight troops of seventy men each. They receive from the king half a ducat a day; this is paid them every two months, which being of 28 days each, they have seven payments annually. In each of these companies the colonel has the privilege of keeping two places vacant,

and of appropriating the emolument to himself, which amounts to more than fourteen pounds sterling every week." The troop which then met the Duke was the Earl's own troop, then stationed at Reading. After the duke had been in London a short time, the king, on the 11th May, held a Review of his Guards, &c., in Hyde Park. From the Duke's account we learn that at this review seven troops of the "Regiment of Guards commanded by the Earl of Oxford, "each consisting of sixty men, were present, together with fourteen companies of the Foot Guards of His Majesty's regiment, and the General's regiment of Guards, and they were "all in excellent order and equipage." All the pomp and circumstance belonging to such an affair was especially developed. The Duke of York and Prince Rupert were present; the Blues being led by the Earl of Oxford himself. The following is the Duke's account of the order in which the several regiments present marched past the king:—"They marched by in files in sight of His Majesty and their highnesses. The vanguard consisted of the company of the Duke of Monmouth, who marched at its head in full dress. This was followed by the General's company and a troop of Cavalry of the Earl of Oxford's regiment; the Infantry regiment of the King came next, with six pieces of cannon; that of General Monk following, which was succeeded by the regiment of Cavalry of the Earl of Oxford, the Duke of York's company forming the rear-guard. When they had marched by, without firing either a volley or a salvo, His Majesty dismounted from his horse, and entering his carriage with the Duke and Prince Rupert, returned to Whitehall, His Highness going home, and the soldiers being dismissed to their quarters."

(To be continued).

THE RECORDS OF CHELSEA HOSPITAL.

At first a college which was to rival Oxford by the wisdom of its professors and the learning of its students; then a place for wild beasts and prisoners of war; after that a riding-school, and then a gift from the King to the Royal Society; the Royal Hospital at Chelsea has undergone as many transformations as have buildings of far greater note and antiquity. It was at the instance of Dr. Sutcliffe, then Dean of Exeter, that James I., on the 8th of May, 1609, laid the foundation-stone of a new college, "in which theology should be studied on the pure principles of the Bible, and champions reared up by whom, from age to age, the cause of Gospel truth might be defended;" but although many illustrious names were, during the following twenty years, enrolled in the list of its fellows, it failed to become the seat of learning that its founders had hoped for. On the death of Dr. Sutcliffe "King James's

College" fell rapidly into decay, and went through all the transitions mentioned above. But we should remember that, if it had been used for a stable, it is in none the worse plight than the Cathedrals of Canterbury and Peterborough, both of which have served as unworthily, and still flourish.

Amid all the confusion and changes that took place in the Civil Wars the College suffered severely ; the funds that had once belonged to it were estranged, and as Charles I. had given even the building itself, with the lands immediately attached to it by grant, to the Duke of Hamilton, the likelihood, after the Restoration, of Chelsea College ever belonging again to the Crown, far less of becoming an institution similar to the Hôtel Royal des Invalides at Paris, was a very small one. Often, however, great things from little actions rise ; so to some wandering military mendicant the merit of evolving Chelsea Hospital may be indirectly awarded. Charles the Second, with all his neglect of those who had sacrificed health and fortune in his father's service, was most liberal to his mistresses, and it is to the kindly good nature of Nell Gwynne—when worked upon by an old veteran's tale—that we owe the existence of this remarkable building. The lands and edifice of King James's College had been returned by the Duke of Hamilton to the king, in order that Charles might present them as a gift to the President and Members of the Royal Society, then in want of suitable accommodation. But after it had been conveyed to Andrew Cole, in trust for that learned body, the Society discovered it was too far removed from London, and in a condition too dilapidated to be of the smallest service to them. The consequence was that, in 1661, Sir Stephen Fox, Paymaster of the Forces, purchased it back for the king's use, at the cost of thirteen hundred pounds—an arrangement, as Mr. Gleig tells us, "for which the president received the formal thanks of his council at the moment, and at which the nation has had up to the present hour good cause to rejoice."

About this time Nell Gwynne was in high favour with the king, and he transferred the purchase made from the Royal Society to that lady. There Nell inhabited a cottage, the garden of which stretched down to the Thames, where, in the summer months, she was in the habit of entertaining her royal lover and such guests as accompanied him. "It chanced on a certain occasion," says the anonymous author of her Memoirs, "as she was rolling about town in her coach, that a poor man came to the coach door who told her a story, whether true or false is immaterial, of his having been wounded in the Civil Wars in defence of the royal cause. Struck by the man's appeal and helpless condition, Nell hurried back to the king, and, strengthened by the justice of her cause, beseeched him to remove at once such a scandal, by endowing an hospital wherein maimed and helpless old soldiers might be received and cared for during the remainder of their existence. Charles, to his credit be it stated, entered zealously into the idea, and Sir Stephen Fox enter

taining the project with equal warmth of feeling, nothing remained but to make choice of a proper site, and to raise funds for the purpose of building and endowment."

It happened about this time as well that a number of troops returned from Tangiers, most of them in a helpless condition from wounds and sickness, and as there was no regular available relief for these men, the necessity for the speedy erection of an hospital to receive invalid soldiers became more and more apparent to the king, and as both Nell and Sir Stephen Fox were equally urgent, the scheme, which but for them would probably have floated out of the royal mind, became daily more tangible and likely of realisation. To Nell, however, belongs the honour of definitively settling the matter. She was sitting with Charles one day in her summer-house at Chelsea, by a window which overlooked the meadows surrounding King James's College, when the Paymaster of the Forces entered, and the subject of the projected hospital and of the difficulty of finding a proper site was resumed. "Your Majesty could not do better," said Sir Stephen Fox, "than give up for the purpose your recent purchase from the Royal Society." The king at once replied, "You shall have it;" but, recollecting himself, instantly added, "Odso! I forgot—I have already given this land to Nell here." "Have you so, Charles?" exclaimed Nell, gaily; "then I will return it to you again for so good a purpose." This generous offer was accepted, and Nell being transferred to a mansion which the king had built for her in Pall Mall, Thame Shot, with the meadows and closes adjacent, were set apart for the use of the hospital.

No time was now lost in carrying out the design. The conversation described above, occurred in the autumn of 1681, and on the 22nd of December that year, a warrant was issued announcing the royal intention of founding an hospital for the relief of decayed soldiers, and constituting the paymaster of the land-forces "receiver-general and treasurer of all such monies as should, from time to time, be given or paid towards erecting the said hospital, or the support or maintenance thereof."

It is but right to state, that there are some people who assign but a legendary value to the share Nell Gwynne is here stated to have taken in the matter, but the arguments adduced are so feeble that we have placed no reliance upon them. The evidence on which this idea is endeavoured to be supported is, first, her being a "thoughtless woman of pleasure, who was always too much engrossed with her own personal and family intrigues to have originated the idea of an undertaking of such national importance. The second reason is her being "so illiterate" that she only learned to write the initials of her name, "E. G., which she scrawled in the most ludicrous form at the foot of the receipt for her quarterly allowance." The third reason is that several writers of the period make no mention of Nell's name in connection with the hospital.

Taking the last reason first, it is equally notable that, while some

writers of the time do mention Nell Gwynne's direct influence in the foundation of the hospital, none of them attempt to attribute the origin of the scheme to Sir Stephen Fox, the person that Nell's opponents have ascribed the honour to. Sir Stephen certainly gave £1,300 to the hospital, but as that was the exact price given by the king for it, it appears to us only a reasonable supposition that, at the time Nell so generously gave the site, she called upon the paymaster-general to be equally generous out of the large sums he was then and had been drawing yearly from the army, and when thus challenged in the presence of the king, he agreed to give an equal sum to the value of the land bestowed by Nell Gwynne—namely, £1,300. The second reason, of being unable to write, is not worth referring to, so we will consider the first—that her “being a thoughtless woman of pleasure” prevented her from being either liberal in purse, or able to think of, far less to carry out, good ideas. Unfortunately for the hypothesis, virtuous people are not always the cleverest in creation; neither are they as a rule the most charitable. In fact we believe that, among the benevolent of all ages, the subscriptions from the sinners would equal in amount the sums given by the saints, and we are further of opinion that, but for the money given by the former, the greater portion of the existing charitable institutions would have their usefulness diminished by one-half. In proof of our view, we may mention that Charles, finding money coming in but slowly, had recourse to the clergy, and, in October, 1684, addressed a letter on the subject to Archbishop Sancroft, asking him to send circular letters to his bishops, who were in turn “earnestly to incite” the clergymen of their respective dioceses, “exhorting them to contribute liberally to this good design, so manifestly tending to the glory of God and service of your king and country.”*

The following extract from a letter written by the Archbishop of York, in reply to the king's appeal through the Archbishop of Canterbury, may be given as a specimen of how the appeal was received by the clergy generally. Writing on the 19th November, 1684, the Archbishop of York says, “My business is this. I have received a second letter from ye Kg. about Chelsey Colledge, wherein a charge is made of some words particular to ye clergy for some other yt. may comprehend the laity and fetch them into ye same contribution. This I feare will be not only very troublesome to all ye Bps., but (at least) of no use to ye King, &c.”†

Now we contend that the very careless spirit displayed here by the clergy is a convincing proof that to Nell Gwynne must be assigned the honour of having not only given the idea of founding an hospital that old soldiers could retire to when incapable of earning their livelihood, but likewise the greater honour of having kept the subject continually before the mind of the king, as we find him as earnest in 1684 in the matter as he was three years before, when

* Tanner MS. 290, f. 223.

† Tanner MS. 32, f. 176.

it was first suggested to him. Charles, as it is well known, was of a rather volatile nature—one that would have forgotten all promises to Sir Stephen Fox in three weeks, far less three years, but was capable, either for good or harm, of keeping his word to any of his mistresses. The several ingenious schemes tried to obtain funds are more suggestive of woman's wit than of man's wisdom. First, there was Sir Stephen Fox's gift of £1,300, followed by one of £1,000 from Tobias Rustal (a former page of the Back Stairs). Then the king was induced to add a sum of £6,787 4s. 2½d., an unapplied balance of Secret Service Money, which, from one who was often very poor, was a liberal gift indeed.

Many years previous to this, Sir Stephen Fox, finding that the troops did not receive their pay until long after it had become due, took upon himself to remedy this inconvenience by advancing the money himself, for which use he deducted 12d. out of every pound issued. This was managed by raising money on his own private credit in account with various bankers, and the arrangement is thus described in Pepys' Diary, 16th Jan., 1666—7 :—

“Sir Stephen Fox told me his whole mystery in the business of the interest he pays as treasurer of the army. They give him 12d. per pound quite through the army, with condition to be paid weekly. This he undertakes for his own private credit, and to be paid by the king at the end of every four months. If the king pay him not at the end of every four months, then, for all the time he stays longer, my lord treasurer allows him, by agreement, eight per cent. per annum for the forbearance; so that, in fine, he hath about 12 per cent. from the king and the army for fifteen or sixteen months interest, out of which he gains soundly, his expense being about £130,000 per annum.”

After having enjoyed this privilege for about eighteen years, Sir Stephen relinquished it “by reason of the difficulties of the revenue;” when the king issued a royal warrant recognizing the “absolute necessity of constant and steady payment of the troops,” and directing that the muster rolls be completely paid off before the end of the succeeding muster, and that, in return for such regular payment, the deduction of 12d. in the pound was continued.

This poundage, all of it soldier's money, was by letters of Privy Seal dated 17th May, 1683, ordered to be applied partly to the fund for carrying on the erection of Chelsea Hospital, and, as the letter had a retrospective effect from 1st January, 1680—1, a considerable sum was thus made available for the purpose named. But this was not all, for in the succeeding year it was ordered, by warrant dated 17th March, 1684, that on the occasion of sale of officers' commissions, both buyer and seller should, for this purpose, each pay 12d. per pound out of every pound which changed hands, and by another warrant under date 17th June, 1684, a deduction of one day's pay was ordered to be made from the annual allowance made to every officer and soldier.

This certainly brought funds, but when we remember the scale of magnificence which Sir Christopher Wren projected the building upon, we are not surprised to find that money was still wanting to carry out the architect's plan. To meet this at first the proportion of poundage paid by the troops was increased from one-third to two-thirds. This took effect from 1st January, 1685—6, and finally the whole of the poundage, after deducting certain expenses, was made available for the work.

In 1685 the House of Commons passed a resolution, "That some part of what shall arise from the Licensing of Hackney Coaches be applied to Chelsea College," but no money was ever received by the hospital from that source. An endowment, however, of one hundred chaldrons of coal annually was secured by King James II. from the Corporation of Newcastle-on-Tyne by indenture, 17th Dec., 1685, in return for the castle and premises and castle fields of that town, leased to the corporation.

The building of the edifice had advanced so far in 1687 that Lord Ranelagh, then paymaster-general of the forces, made a report to His Majesty, which stated that the hospital was now capable of accommodating four-hundred-and-sixteen men, with a governor, chaplain, curate, physician, secretary, treasurer, housekeeper, and sixteen matrons. This, however, did not meet the views of the king's government, who had named other officials, and as no apartments had been prepared for these, the building continued until two years after the revolution.

The exact date when the veterans took possession of their new abode is not exactly known. That some of them were domiciled in Chelsea during the latter part of the reign of James II. seems more than probable from the fact, that the altar covering, pulpit and desk in the chapel, as well as the magnificent communion plate and black-letter Prayer-books which belong to it, were the gifts of that monarch, who was so anxious to bring back the people to the Church of Rome, that he even strove to get his invalid soldiers to become Catholics. So persistent was he in his efforts, that at last a fine old warrior told him, in reply to the question "Why should you not adopt the religion of your prince?" "Well, please your majesty, my reason is this, I was once a Catholic, I then became a Protestant, and I should be very happy to go back to your majesty's religion again, only, when I was at Tangiers, I took an oath that the next time I changed my creed I should become a Turk, and your majesty surely does not expect me to break my oath?" James, who could not well resent this reply, was at the same time mortally offended at it, and let the pensioners' religion alone afterwards.

While the hospital was getting ready for the inmates, a liberal allowance, considering the value of money at the time, was made to support the invalids. Thus, worn out gentlemen of the horse-guards and corporals of light-horse were allowed one shilling and sixpence per diem; privates of light-horse and horse-grenadiers one

shilling; corporals of dragoons ninepence; privates of dragoons sixpence; sergeants of infantry elevenpence; corporals of infantry, drummers and artillery gunners sevenpence; and privates of infantry fivepence. But, as the funds available to support them only amounted to a little more than £12,000 yearly, the number of pensions to be granted was a limited one.

On the accession of the Prince of Orange to the throne, the fortunes of Chelsea Hospital were not injuriously affected by the change of monarchs. William, himself a soldier, was only too happy to assist an undertaking which had for its object the comfort of his soldiers' latter days. First he sanctioned a still farther increase to the building fund, then he gave Lord Ranelagh, Sir Stephen Fox and Sir Christopher Wren authority "to settle and ascertain the proportions and kinds of victuals they should judge most convenient for the said persons, to make contracts for the same and for clothing, to nominate and put in such under-officers as are wanting, and to prepare rules, orders and regulations." This was followed by a new grant of one day's pay yearly out of the payments to be made to the guards, garrisons and land forces, to be applied towards the building and furnishing the Royal Hospital near Chelsea, and towards the better maintenance of such superannuated and disabled officers and soldiers as should be provided therein." In addition to this, the original donation was put upon a more certain footing, twelve thousand pounds a-year being allotted in lieu of the fraction of the poundage of army pay which Charles the Second had secured to the hospital.

The contributions received from the time the hospital was endowed by Charles until 1699 were as follows:—

From Secret Service Fund	£6,787	4	2½
Tobias Rustat, with interest	1,174	3	11½
Sir Stephen Fox	1,300	0	0
Poundage, days' pay, &c.	1,084	13	1
Thomas Turton (afterwards Earl of Thanet)	500	0	0
Sir Leoline Jenkins, Knight	100	0	0
The Earl of Craven	20	0	0
Wm. Blenthwait, Esq., Secretary to the Forces	241	10	0
The Archbishop of Canterbury	1,000	0	0
The Executors of the Bishop of Winchester	500	0	0
The Executors of Walter Mortimer, Esq.	200	0	0

Other sums were received for rent of lands until actually required for building, and for the value of one hundred chaldrons of coal, until the hospital was ready to use them.

Since 1699 monies have been left to the hospital, notably £4,000 from Charles Fox (late Paymaster of the Forces in the Low

Countries) in 1705, and between 1785 and 1793 £3,966 6s. 9d., this being the savings on invalid clothing.

About the year 1812 the one hundred chaldrons of coals from Newcastle was commuted to a fixed yearly payment of £173 9s. which has since been regularly brought to account. In 1826 a sum of £9,000 was transferred from a legacy left by Colonel Drouly in order to purchase a piece of land, and later, in 1843, a further sum of £11,970 for a similar purpose. In addition to the foregoing, a legacy of £1,867 14s. 4d. was left to the hospital by Mr. John Stuart, of Prescott, Lancashire, on the 18th March, 1845; which, having been invested in Three per cent. Consols, now amounts to £3,061 14s. 2d.

The votes to Chelsea Hospital from the Exchequer between 1720 and 1835 amounted in round numbers to £3,118,000. There were other sources of income, such as transfers from unclaimed prize-money belonging to the Army, &c.

The poundage system was kept in operation until 1833, when it was reduced to 6d. per pound, but this only applied to subsequent pensions, those granted previously continued to pay the full deduction of 12d. in the pound.

In 1842 the pensions were allowed to be paid monthly as well as quarterly, but it was not until 1847 that the deduction altogether ceased by virtue of a short Act reciting the "expediency" of no longer making the deduction. Since then the out-pensioners have received their pensions in full.

The proposed establishment of in-pensioners submitted to William III. was, 26 officers, 32 light horsemen, 32 sergeants, 32 corporals, 16 drummers, and 336 privates, total 474. In 1816, upon the completion of the infirmary, 63 men were added to the establishment, which then consisted of 29 officers, 38 light horsemen, 34 sergeants, 36 corporals, 17 drummers, and 385 privates, in all 539. This, on the recommendation of Earl Granville, was altered by Royal Warrant of 12th August, 1850, so as to contain, 1 sergcant-major, 1 quartermaster-sergeant, 6 colour-sergeants, 24 sergeants, 24 corporals, 6 drummers, 50 privates first class, 50 privates second class, and 378 third class—total 540.

Although in the foregoing mention is made of "officers," it is not to be supposed that the captains, lieutenants and ensigns, were, or ever had been, commissioned officers. As soldiers they had served in the ranks, and were originally what they now are, non-commissioned officers who received extra pay for the warrant rank they held after joining the hospital. The light-horsemen, having been originally younger sons of gentlemen, were treated on service as cadets, and in Chelsea Hospital took rank in olden times next to the officers. The privilege which they and horsemen of inferior rank shared was to be exempt from duty of every kind except that of furnishing a sentry at the governor's door. Their pay was two sbillings a week, while that of the privates was only eightpence.

Small, however, as the allowances were, Royal Commissions discovered that they should be reduced, and accordingly we find, that sergeants lost threepence daily, corporals of horse fourpence, and other ranks proportionally, in order to effect a saving of £8,000 per annum. Nor did these early Reformers stop there, for, having advised that all out-pensioners who failed to appear at the periodical musters should be struck off the pension list, numbers were struck off accordingly. But even this did not suffice. It had hitherto been the custom to grant relief to soldiers who had served for twenty years, this was withdrawn, and none but men who had lost a limb in action, or otherwise disabled, being deemed qualified to have their names on the pension list, fivepence per diem being settled as the universal amount of pension, without distinction of rank or character. From this it will be seen that then, as now, the worn-out soldier had few friends. Fortunately, while public generosity was thus gagged, private individuals, actuated by a nobler principle than such paltry economy, left handsome donations to the hospital that sheltered those whose valour had made England and the English name respected and feared abroad.

As might be expected, many abuses prevailed which had the Royal Commissioners given their attention to, instead of to the reduction of the old soldiers' pensions, would have struck the root of the evil. The invalid companies, of which there were twelve, never suffered the smallest diminution in point of numbers; insomuch that individuals once on the roster of these companies seemed to become immortal. Death might claim them, or they might emigrate, or again take service, but their pay continued to be drawn in the invalid battalion as if they had been present on every parade. This must have swelled the pension list considerably, although it should be remembered that as the military power of the country increased the pension list would swell also.

It is noticeable that as often as war broke out the pension list would decrease, and increase as soon as peace had been proclaimed. The cause of the latter will be easily understood, and when we explain that it was customary, on the outbreak of hostilities, to call into duty as many pensioners as were capable of bearing arms, the former cause will be as easily comprehended.

These invalid companies became subsequently veteran battalions, and, in fact, the 41st Regiment was originally composed of invalids. Previous to the conclusion of the French War the number of veteran battalions amounted to thirteen, composed of 10,961 rank and file.

While looking over these old matters, it is rather surprising to find that, although the pay of the rank and file has increased considerably since Cromwell's time, that of the officers has actually got less in the cavalry, the infantry remaining about the same. In the Parliamentary army, a colonel of horse had thirty shillings per diem, a major twenty-one shillings, a captain fourteen shillings, a lieutenant nine shillings, a cornet eight shillings, and corporals and

trumpeters two shillings. The daily pay of a colonel of infantry was twenty shillings, a lieutenant-colonel fifteen shillings, a major thirteen shillings, and a captain eight shillings.

What was termed Mr. Wyndham's Act came into force at the latter end of 1806. Intended to benefit the soldier, its rules were as much over-liberal as previously the law had been parsimonious. Two years' service in the East or West Indies counted as three, and the soldier had a legal right to demand a pension, quite irrespective of the character he bore while serving. In this way men who had been abroad could count almost as many years' service as they were old, and those who a year previous would have been discharged on fivepence daily, could now *demand* as much as two shillings. In 1826 Mr. Wyndham's Act was repealed, the addition to service having been abolished by Royal Warrant, 16th February, 1818.

The out-pensioners of Chelsea numbered, in 1813, 25,398; in 1823 there were 81,189; ten years' later, 80,927; in 1843, 76,692; in 1853, 66,924; in 1863, 60,357; and last year, 66,281. The amounts paid to them have, of course, varied considerably, but while giving no detailed list of them, we wish to direct attention to the amounts collected from the soldiers' pay, contributions, &c., up till 1847.

Poundage of 12d. from Pay . . .	£5,451,886	3	3½
Poundage of 12d. and 6d. from Retired Full and Half-pay . . .	121,070	19	6½
Double Poundage of 12d. on sale of Commissions	1,743	2	8
Days' pay in a year	312,741	0	0½
Gifts, Legacies, Rents, and Value of Newcastle Coals	62,788	13	1
Unclaimed Army Prize Money . . .	578,739	13	5
Poundage of 12d. from Out-Pension by 28 Geo. II., 1754	2,245,480	4	8½
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	£8,774,449	16	4½

This, be it remembered, is strictly soldiers' money, having been either stopped from his pay or pension, or the gift of charitable individuals to the hospital. That the Army has never been benefited like the Navy by such gifts from the Crown as the Derwentwater estates, is too well known, and hence the superiority of Greenwich pensioners over their Chelsea brethren. But we may well inquire why there should have been such persistent, barefaced attacks against the small pittance the State has—nearly always—thought sufficient for the soldier, while the seamen and marine pensioners have invariably been treated on a comparatively liberal scale? Sailors have certainly to face, on the whole, greater perils than soldiers, yet, in war, the former have seldom to contend with the starvation from want of food and cold which the latter, so soon as they take the field, have to endure. Surely, it cannot be too much to expect that the

country which requires such services from its soldiers, such frequent exposure to unhealthy climates, such perpetual self-control and endurance, and moral courage, should deal with them, in old age, with far more of liberality than is apt in their cases to be exercised.

We cannot do better than conclude with the words of the Rev. Mr. Gleig, when writing of Chelsea Pensioners. "Within the walls of Chelsea Hospital the veteran has indeed nothing to complain of, but why? Because the establishment is his own, built by his own or his predecessors' money—supported out of funds which the nation never gave, and not, therefore, but for an error in policy which never ought to have been committed, depending in any degree upon the liberality of Parliament. For in addition to the poundage, or deduction from the soldiers' pay, already referred to as having been required at the beginning, I find that, in the year 1755, the great Lord Chatham carried a bill through Parliament, which, enabling the pensioners to receive their pensions by half-yearly payments in advance, kept back from the total amount the sum of five per cent., and caused it to be applied in diminution of the general charge of the out-pensioners. And had the sum thus deducted from the veterans' pittance been allowed to accumulate, the interest accruing from it would have long ago sufficed to cover all the expenses of Chelsea Hospital. The in-pensioner, therefore, though he have no complaints to make, owes nothing to the generosity of the House of Commons." The Chaplain-General then inquires, "How is it with the out-pensioners?" but, feeling he treads on dangerous ground, "gladly turns off into another path," otherwise he could not do so and retain respect for "those that are in authority."*

THE EMPLOYMENT OF RAILROADS IN WAR.

After the introduction of gunpowder into warfare and the organization of formidable standing armies, and, especially, since civilization and politics have brought nations nearer together by enlightening them on the necessity of mutual support, those flood-like invasions of old recorded in history seemed utterly impossible of repetition. In a certain sense they are so, for, properly qualified, they were migrations of races of men "seeking new settlements"—impelled by stern necessity rather than military operations. Providence had more to do with them than the God of War. Goths, Vandals, Huns, Alans, Arabs and Tartars won empires at the run, and the result was an absolute necessity in the circumstances of the times; but most assuredly nothing that those nations achieved can be compared to the war-tide impelled

* Chelsea Pensioners, page 57.

by Prussia in the Franco-German War—virtually effecting all that Goths, Vandals, Huns, Alans, Arabs and Tartars ever performed, and a vast deal more in the bargain.

It was railways that enabled Prussia to heave up her flood of invasion, which was like every other flood—resistless.

No military sagacity could trace a plan which would infallibly secure success to great and distant invasions. During a space of four thousand years such invasions have constituted the glory of only five or six conquerors, but they have been the scourge of nations and armies attempting them.

At the present day, however, railways and steam-power (and the Electric Telegraph) have abridged distances, and the elements of this difficult problem are considerably altered.

If it be a leading principle in the art of war to maintain as extensive a strategical front as possible—because it keeps the enemy in doubt as to the points on which we intend to strike a decisive blow—still, the distance of the strategical point must never be incompatible with the maintenance of our interior lines. Hence, *superiority in the rate of marching* becomes of immense advantage.

If one army can march twice as fast as another, its divisions are positively on interior lines when eighty or ninety miles apart, with respect to the enemy, when his divisions are only fifty miles asunder.

Napoleon said that, if two armies are equal in all things excepting numbers and the rate of marching, the relative value of the two armies will not be found by comparing their numbers only, but by comparing the products of their numbers and rates of marching. Hence, the immense superiority conferred by rapid means of transit along the strategic front—as secured by railway.

It was by availing themselves in this manner by a railway that the French made that splendid movement at the commencement of the Italian War, when, by suddenly concentrating their forces, which had been extended along the whole line of the Ticino, on their extreme left, they crossed, and attacking the Austrians before they could concentrate, won the Battle of Magenta.

In the present epoch, therefore, we have to take into account and to secure new strategic lines—railways; and in strategy we must necessarily apply a new power—steam.

Railways must always play an important point in strategic operations—whether on the offensive or the defensive of war. Armies will reach their destination, not only more speedily but in much better health and spirits, if the distance be great. Above all, we shall no longer find that frightful wasting away of our forces which attended the march of armies—often diminishing their effective by at least one-fourth—before they could strike a blow at the enemy.

On the offensive, armies may be organized far away from the

frontier, and yet become concentrated there with amazing rapidity ; and the suddenness of the defensive attack will rival that of the thunderbolt in effect—for railways will transport from the extremities of the land all available troops, and mass them from the capital, and thence fling them on the threatened frontier, following them up with ammunition and supplies.

Ready at any moment, they will fetch from the arsenals to the theatre of war or the field of battle whatever ammunition or materiel might be urgently needed, and thus frequently decide the fate of the day—thanks to the aid of the wonder-working Ariel of Electricity along his humming wires. Unquestionably if Napoleon, in 1814, had been provided with the present two French lines of the East and Lyons, matters might have taken a different turn and had a different ending.

Lastly, railways can aid us in sieges—defensive positions in intrenched camps—like the small railroad in the Crimea, which connected the port of disembarkation with head-quarters and served for the transport of artillery and supplies, and secured the safe and easy disposal of the wounded.

All things considered, it is not too much to say that, henceforth, there will never be a true line of operations without its railway, and, with a very simple surveillance, railways might be made to approach the rear of an army to within thirty or thirty-five miles without inconvenience—always ensuring the day's supplies of ammunition, and, if necessary, provisions.

Thus, it is evident that Generals-in-chief will have, henceforth, more and more to connect their strategical plans with the direction of the railways which intersect the theatre of operations. They will, therefore, have to direct their attention to the working of railroads with as much solicitude as to the armament and sustenance of their troops. A false calculation—an erroneous appreciation of the capability of a line of railway may originate very serious disappointments and disastrous failures.

Thus, at the beginning of the year 1871, an order was transmitted to the Paris-Lyons-Mediterranean Company, to transport the 15th French Corps-d'armée—an effective of 35,000 men and 18 batteries of artillery—from Vierzon to Clerval, a station situated on a line between Besançon and Belfort. The distance was about 400 kilometres. It was required that the transport should be terminated in thirty-six hours. Well, the conveyance could not be effected in less than twelve days.* The result was disastrous to the French—like so many of the expeditions founded on the false promises of routine which handed over the Second Empire and France to their vigorous and watchful enemy.

How is a railway to be enabled to effect its utmost in strategic

* “ Les Chemins de fer pendant la guerre de 1870-71.” par F. Jacquin.

operations? Captain Niox, of the French Staff, defines the requirements as follows:*

"A railway must have entire freedom of movement; it must work out of range of the enemy, and it must possess the free disposition of its matériel; consequently, it is dangerous to bring the heads of lines near the radius of the operations of armies; and we should assuredly limit to the utmost extent the number of trains authorised to penetrate that radius—in fact, only to that which is strictly necessary for bringing up provisions, ammunition, and to effect evacuations."

On the day of the Battle of Le Mans, 1,450 waggons were heaped in the station or on the roads leading to it. In spite of the utmost efforts of the officials of the line, it was impossible to save all of them. Six engines and 212 waggons (the greater part loaded with provisions) fell into the hands of the enemy; the remainder escaped only to encumber the station of Laval and then that of Rennes, where the confusion soon exceeded everything that can be imagined—in fact, it was the realization of Milton's "Confusion worse confounded." Whilst the trains which were flying before the enemy were arriving at Laval, another, running in the opposite direction, conveying troops of re-inforcement, was getting ready to start from Redon towards Rennes. The trains had to be stopped on the road, the fire of the engines was shovelled or put out, and all the immense material came to a standstill like living beings stiffened by frost or pinioned by paralysis. It was with the utmost difficulty and labour that the extinguished engines were subsequently extricated; the railway staff was utterly exhausted by fatigue and the want of sleep. For a moment the situation assumed the gravest aspect; it was only with great difficulty, and thanks to the exceptional authority of a special delegate of the Government, that anything like order could at length be restored in the service. By degrees the circulation was resumed; but at the date of the armistice—that is, fifteen days after the Battle of Le Mans—there still remained 1,092 waggons and carriages on the principal rail between Noyal and Rennes, from 400 to 500 between Vitré and Châteaubourg, and 1,000 at the stations between Mayenne and Rennes.

During the Campaign of the East, orders and counter-orders inconsiderately given, at a time when the enemy was already close at hand, brought to a standstill, in like manner, at the station of Dôle, some 500 waggons! Their extrication had to be effected under the very fire of the Prussian artillery, and 118 of them had to be abandoned.

Indeed, Captain Niox does not hesitate to attribute the loss of the greater part of the material taken by the Germans, during the war, to the employment of the railroads in abnormal conditions.

* *Journal des Sciences Militaires*. "De l'emploi des Chemins de fer," &c. —Dumaine, Paris.

During the Campaign, the French thus lost ninety locomotives, and 4,000 waggons, unnecessarily sacrificed to the Prussians.

Experience has demonstrated that it would be a grave error to suppose that we can count upon a railway for the transportation of troops, with artillery, horses, and carriages, upon any given point of its extent. The stations provided with rampes, quays, and all other necessary appliances, are the only ones adapted for the embarkation and disembarkation of corps consisting of the three arms. No troops but infantry can be disembarked upon any other point, unless the trains be provided with flying-bridges in considerable number. It appears that attempts have been made, with a promise of good results, to construct temporary rampes by means of rails and traverses taken from the railway itself—a section of workmen trained for the purpose, replacing them immediately after the embarkation or disembarkation.

The neglect of this fact led to several mishaps to the French in the last war. During the Campaign of the East, the military trains advancing in the direction of Belfort, which ought to have stopped at Besançon, received orders to continue on the line to a way in the narrow valley of the Doubs, to the station of Clerval, beyond which the destruction of a bridge intercepted the circulation. This was a most unfortunate order. The station of Clerval was not in condition to receive an army-corps; it had no disembarking quays for the matériel and the horses; it was even deficient in ways for stationing the trains. The result was immense delay and confusion.

The experience of the last war has also shown that it is disastrous, in many cases, to transform the railway waggons into rolling magazines of provisions or mobile parks of artillery. It may seem advantageous to keep on the rails the provisions or ammunition, the employment of which is not to be immediate; but unfortunately the trains soon get huddled together; it becomes impossible to get out the waggons that are required; indeed, it sometimes happens that nobody knows where to find them; and, still more to be regretted, a considerable portion of the matériel is set fast, and thus, at any moment, the rapid transportation of the troops may be rendered impossible. This actually happened, at the very commencement of the war, at the stations of Metz; and the Germans themselves several times suffered from this inconvenience, which led to the issue of formal orders on their part, to effect the immediate clearance of the trains as soon as they reached their destination. The want of management among the French may be imagined from the fact that at the conclusion of peace, the Paris-Lyons Railway Company alone had on its lines no less than 7,500 waggons laden and set fast, or as the French say, "immobilised!"

Lastly, as Captain Niox significantly observes, there is no advantage in using railways for the transportation of troops in

cases when the number of days required for the transportation would not be less than the number of halts the troops would have to make on foot. Indeed, it is most important to bear in mind that a division which has made a certain number of regular halts, will always come up to fire in better conditions of vigour, order, and confidence, than when it has been conveyed by a railway. Experience has too often shown that the soldiers conveyed by train are deprived of repose, and quit the trains exhausted by fatigue. The evil effects of railway-travelling have been abundantly demonstrated, and the very hunger and thirst experienced by most persons from that cause attest, physiologically, the wear and tear of the system and the consequent pressure on the nervous organism by the rapid locomotion and multitudinous shakings in every direction, to which the body is necessarily subjected. However unimportant this consideration may appear under the circumstances, there can be no question as to the expediency of using railways when marching will suffice in the matter of time.

As an instance, we may state that, in the month of August, 1870, the divisions of the 6th French corps d'armée, which had remained at the camp of Châlons, were ordered to Metz by railway. The line was cut by the enemy's artillery, and the last trains were unable to go on, whilst the army-corps marching with halts, would certainly have arrived in useful time—well-conditioned and compact on the field of the Battle of Rézonville, which is only three or four days' march from the camp of Châlons.

If it be at the moment when our strategic deployment is to be effected, that railways are required for the most important services,—it is on their more or less perfect organization, and on their more or less judicious employment that will often depend the fate of the first encounter between the belligerent armies; for the advantage will almost always be secured by the adversary who has effected the more rapid concentration—that is, he to whom railways shall have given numerical superiority in a minimum of time.

It is, therefore, of the utmost importance that a country should prepare beforehand during peace its railroads in every direction, in view of rapid concentration towards any given point of the theatre of operations. The object should be to multiply converging lines towards the frontiers—to group the lines in one direction by twos, one for going, the other for returning, so as to avoid encumbrance and the possibility of collision between the up and down trains. We must determine long beforehand the embarking-stations adapted to each portion of troops—study the probable points of disembarkation, augment their number by echeloning them on the extremities of the lines, and secure them a rapid disengagement by the preparation of cantonments for the troops in neighbouring localities.

In the preparation of railways for war-service, the chief require-

ment is the establishment of numerous embarking-stations in the interior of the country—the means of disembarkation on the frontiers—either by permanent quays or better still, by means of moveable quays which can be transported at the head of the troops—and, of course, secure a sufficient and competent staff of officials and workmen well acquainted with the lines to be employed for the transit. The transportation itself will never present any serious difficulties. In less than two days, a train of troops can traverse such a country as France from west to east, and the trains may follow each other at only a few minutes' distance. Delays can only result from the embarkations and the disembarkations,—and it is on these points that the most serious attention of the military chiefs must be directed, in order to secure the maximum of rapidity in the concentrations.

The planning and construction of our railways—as among most other nations—have been entirely directed by commercial considerations alone. Not so the establishment of the French network of railroads. There the military view rules the design and the adaptation in every case; and so it was not for the want of perfectly contrived railways that the French so disastrously failed in effecting their concentrations during the last war.

The French railroads are models of strategic adaptation.

The principal lines are :—1. That of the North—which is a line of operations upon Brussels and Cologne; 2. That of Strasbourg—a line of operations against Germany; 3. That of Lyons and the Mediterranean—a line of operations upon Italy; 4. The line of the Centre, Toulouse, and Bordeaux—a line of operations upon the South generally; and 5. The lines of the West—towards Brittany and Normandy, connecting the capital with the naval ports and arsenals on the shores of the Channel. Such are the great French lines, forming radii terminating in a common centre—Paris.

The Chemin de Fer de Ceinture, or central railroad, connects all these lines one with the other; and, moreover, the material and construction of all are similar throughout—in fact, identical,—and their administration or management is (or at any rate, was, in 1860, when our attention was directed to the subject) everywhere on the same footing—the military element predominating among the officials and servants—and all invested with becoming dignity and importance.*

Well might a French military writer at the time in question boastfully exclaim :—“The totality of our railroads presents a strategic disposition, which is the only one in Europe, and adds greatly to our forces on the defensive.”

* Whilst travelling with some French soldiers, one of them complained bitterly in our hearing, of having had several days' lock-up “for not minding what he said” to one of these railway attendants. He took him for a “civil” and “caught a tartar” in the shape of an “*ancien militaire*.”

Nor is the regulated mode of transportation according to the French system, less worthy of consideration.

A convoy of moderate strength, namely, about thirty carriages, with a locomotive travelling at the rate of twenty-four miles per hour, carries 1, of infantry, twenty-eight officers, 939 men, three to six horses, with baggage; in fact, a battalion for active service, with a fraction of the staff; 2, of cavalry, eight officers, 192 men, 160 horses and baggage; that is, an entire squadron, with a fraction of the regimental staff; 3, of artillery, two officers, 109 men, 110 horses and sixteen carriages, amounting to half a battery; 4, of the train, two officers, ninety men, 105 horses, and twenty-two tumbrils. Such is what is called the "units of transportation."

There are, besides, special arrangements for the different arms. For the infantry, luggage-trains or third-class carriages are used, each compartment adapted for ten travellers, receiving only nine soldiers, so as to have one vacant place for bags and arms.

For the cavalry transportation, the horses are placed in the bullock-waggons, pressed close to each other so that they cannot move—this is the best mode for preventing accidents, three to nine being placed in each waggon. As the horse-carriages can contain only three horses, they are of little service for this purpose.

The men are seated on stools or hammocks at the head of their horses; the saddles are in the luggage-waggons, each waggon containing sixty. In short distances the horses travel saddled and packed. The train also carries a wooden bridge to serve as an inclined plane, and permits the landing of the squadron at any point of the journey. The horses eat hay during the journey, and get oats on their arrival.

For the artillery the arrangements are similar. The carriages are placed on trucks—platforms of various dimensions—but two of which generally suffice for three carriages. The first wagons should always be those of the men and horses. The caissons are placed in the rear, because it has been observed that the burning sparks of the locomotive scarcely ever reach beyond the seventh or eighth carriage.

Frequent inspections take place during the journey—to see that the powder is not sifting. When possible, the carriages are tilted. Lastly, the waggons are marked with chalk, so as to secure ready access to the various elements of every piece. An appliance for unloading the waggons is also provided.

By these general arrangements a corps d'armée can be transported as follows:—

For 30 Battalions	. . . . .	30 Convoys
„ 16 Squadrons	. . . . .	16 „
„ 10 Batteries	. . . . .	20 „
„ Baggage	. . . . .	15 „

In all, about eighty convoys, and consequently eighty locomotives and 2,400 carriages.

By means of the Central Railroad, it would be easy to collect on one point all the material required to fling 30,000 men upon the frontier with the utmost rapidity. The departure would be from different starting-places—at least for the cavalry and artillery; as for the infantry, it can start from any point. The convoys would start at intervals of twenty minutes, one after the other. At the end of every twenty-two miles (35 kilos) the locomotives should stop to water; that would be about every hour. As soon as the convoy reaches its destination it should immediately return, to be followed by a second, and so on. All will depart in the same order, and a continual movement will be established on both rails. We may thus calculate the number of convoys required according to the distance to be done.

Thus, for instance, from Paris to Strasburg, the first convoy would take twelve hours to go and as many to return. At the end of twenty-four hours, it will have returned to the point of departure. During twenty-four hours there will be seventy-two convoys at the rate of three per hour, therefore No. 1 might return and take the place of No. 73, and so on.

Such have been the regulated arrangements in France for the transportation of troops by rail for a long time back, and they were authoritatively detailed in the year 1860 in a course of lectures on military art and history, at the "Ecole Impériale d'Application d'état-major," by the professor of that branch, Captain J. Vial, and subsequently published.*

Nor was this solicitous attention to perfect all their arrangements with a view to eventualities, misplaced by the French authorities. Indeed, all the immense labour bestowed in their military developments seemed not only proper but absolutely necessary for France. As General Rémond remarked—"Paris is *very near our* frontiers. We are forced to accept—if not as a *fait accompli*—at least as one of the elements of the problem to be solved—the condition of the proximity of Paris to the enemy's base of operations, and the necessity for transferring *our* base of operations from the banks of the Seine to those of the Loire, which I call our base of *salvation*.

"A coalition of three Powers making an irruption upon the capital of France, presents itself to my imagination under the semblance of a tiger pouncing upon a man whom he wishes to devour, and which has the instinct to wish to crush his head, in order to paralyse his arms. In this case, realizing the fiction of the ever-growing heads of the hydra, we must oppose to the tiger of coalitions, besides the head of railroads—which might be blockaded with Paris—many heads in exchange less advanced towards our frontier. These are perfectly at our disposal, either at Orleans,

* "Cours d'art et d'histoire militaires," par J. Vial, Dumaine, Paris, 1861.

or at the confluence of the Cher at Tours—a point which is the terminus of a branch passing through Alençon and Mans, ending in the gulf of the Seine at Caen, Cherbourg, and Havre.”

And thus General Rémond went on, as it were, prognosticating the very event which was in store for his country—not indeed by a coalition of three Powers, but by an united people, led by a single Power, which, however, was and doubtless is equal to any three that can form a coalition in the present epoch.

We cannot help putting forth the remark that—if the nearness of Paris to the French frontier constituted the grounds of the national and governmental restlessness—how much greater must this become when the French frontier has been brought still nearer to Paris by the last war, with all its bitter, crushing, overwhelming accompaniments? If France, ill at ease, has always been the slumbering volcano of Europe, she must become immeasurably more so in future—for which unsatisfactory European infliction the only set-off will be the unification of the Vaterland and the exaltation of the House of Hohenzollern—the details of whose history are about as logical and sequential as those of “the house that Jack built.”*

Unquestionably the most remarkable concentration ever effected by railways was that of the Germans on the Rhine, at the end of July, 1870.

If we contemplate on a map the very complicated network of the German railroads, we do not distinguish at the first examination which lines are the most favourable for a military operation directed towards the French frontier. This complication appears still greater if we direct our inquiry to single or double lines, and consider the multiplicity of the railway companies. The networks are entangled one with the other, particularly in the countries neighbouring the Rhine—which was, besides, till very lately, parcelled into a great number of petty States, which had been guided in the planning of their railways solely by considerations of local convenience or commercial interests utterly foreign to every strategical plan or adaptability.

Such as it was, however, this network had to be used, and the German Staff applied itself to it with the greatest assiduity to turn it to the best possible advantage.

According to the Prussian military system, the Staff must study, during peace, with the greatest attention to the minutest

* With respect to the results of the war, it is certain that its disasters cannot be attributed to the inefficiency or inadaptability of the French railways—which did their duty in the first concentrations. Indeed, the powerfully centralised organisation of the great French companies enabled them, on the contrary, to make up, in a certain measure, for the defect of a special military commission so elaborately organized by the Prussians. This must be ascribed to the centralisation of the French companies,—for the result would not have been the same if, instead of those single companies, it had been necessary to combine the movements of troops by a number of small lines under separate administrations—as in England.

details, the grouping of large masses of troops, and their transportation in the eventuality of any war that might break out.

One part of the general German Staff is specially occupied with this important service. As soon as ever any new railway section was opened for circulation, it was immediately examined and referred to a plan of concentration in connexion with the locality, all the parts of which were then modified if the new section made it necessary.

The historian of the war of 1870-71 states as follows:—"A minute study of all the lines running upon the theatre of the war, left none of them without employment—even if only momentarily, and secured from each of them the maximum of service. On this account, it became necessary to keep account of the new lines as soon as they began to work—which was also required by the incessant labour of re-examination applied during peace to the establishment of a picture or tableau of transportation for each corps of troops. The portion of the Staff set apart for this function, is called "the Section of the Railways."

It was owing to this judicious forethought that the German army had nothing to suffer from the defects of the network of its railways, and was enabled to play off the advantages which the French network secured to its opponent; and yet, in Germany, at the commencement of the war, many competent men believed that this superiority, on the side of the French was such that the German army could scarcely reach and occupy the line of the Rhine before the arrival of the French advancing to the attack with all their forces.*

General Moltke, however, was not one of those who shared this opinion completely, although he saw reason to pray very hard that his stipulated time might be vouchsafed him for the accomplishment of his concentration.

Before the war of 1870, the service of the German railway was regulated as follows:—

A central commission, sitting at Berlin, composed of superior officers and functionaries of the various administrations, centralises all the questions relating to military transportations by railways. Two of its members, a staff-officer and the representative of the Ministry of Public Works, form an *executive commission*, which has to draw up the plans of transportation and give the necessary orders. Its authority is, so to speak, absolute, and the regulation imposes upon these two members the obligation of acting in concert, and, if possible, in common.

Each line is, in like-manner, placed under the direction of a staff-officer and a superior agent of the railway, "who travel together when necessary, and have an office in common." In thus imposing upon the members of these commissions the obliga-

* "Guerre Franco-Allemande de 1870-71, par le Colonel Borestädt, Dumaine, Paris.

tion of always coming to their decisions in common, it was intended to avoid as much as possible the conflicts of attribution and the confusion which might be the consequence of orders emanating from two authorities—one military, the other administrative. Definitively the supremacy was given to the military authority, but it was wisely exacted that it should be at every moment enlightened by a man familiar with the details of the railway services—capable of knowing all the resources and of indicating the limit of their power.

The general staff prepares beforehand for each army-corps “a transport and march tableau” (*Fahr und Marsch Tableau*), on which are indicated—the effective in men, horses, and carriages of each fraction of the mobilised troops, the number of axle-trees required for the transportation, the day and place on which they will be ready to march, the place and date of their embarkation, the place and date of their arrival at their destination.

These tableaux constitute in reality the veritable general plan of concentration; they must be established with the greatest care.

On their part, the line-commissions establish—“the military plan of transportation” (*Militair-Fahrplan*), on which are only given the number of the daily trains and the hours of departure and arrival at the different stations of the transit.

On the study of the preceding tableaux, the line-commissions establish the *tableaux of the dispositions of the march* (*Fahrt-Disposition*), indicating for each fraction of troops the number of the train, the point of departure, the various points of stopping and the duration of the stay, the stations for revictualing, the time and place of arrival.

According to the Regulation of 1866, there were to be expedited as an average daily exportation, in the two directions, eight trains upon single lines, and twelve on double lines, at an average rate of twenty-two to twenty-six kilometres per hour, including short halts; in 1870 these figures were augmented to twelve and eighteen, but great inconveniences result in exceeding them.

In general, a train transports one battalion of 1000 men, one squadron of 150 horses, or one battery of six pieces with the accessories, so that a train has at least thirty carriages and not many more than fifty. An army-corps requires the employment of about ninety trains, sixty-five of which are for the troops and twenty-five for the material; but there have been used as many as 108 during the last war.

According to these data, the German Staff had calculated that three-fifths of the waggon and two-fifths of the locomotives would suffice for the transportation of the first ten army-corps, even if employed only once, and that the concentration would be terminated on the 18th day after the order of mobilisation.

Commissions of halts were established to exert a surveillance during the transportations. The commands of halts constitute

one of the most important wheels in the organization of the lines of communication of the Prussian Army. On the railways, the commandant of halts—besides his ordinary attributes—should see to the exact observation of the march of the trains. He is also required to conform to the order relating to the transportation, emanating from the staff-officer of the line-commission even should the latter be of an inferior grade, on the other hand he may give intimations to the commandants of troops—even of a higher grade—as to all that concerns the conveyance of the troops, before and during the embarkation, and during the stops.

Such are the leading features of the Prussian system of troop-transportation by railway.

All the dispositions of a plan of campaign in the eventuality of a war with France, had been minutely foreseen and noted in a memoir drawn up by General Moltke during the years 1868-69,

“This memoir,” says the official historian of the German Staff, “has formed, without any alteration, the basis of the first dispositions to be taken when the war broke out so unexpectedly.”

Nine lines were employed for the transportation of all the troops of North and South Germany, upon the French frontier. Besides these nine principal lines, four auxiliary lines were designated to bring upon the principal lines the corps stationed in the distant provinces.

These thirteen lines may be considered the principal arteries destined to fling upon the French frontier the troops and material which small secondary lines or branch-railways drained from all parts of the country. The sections of railway not comprised in the above lines were left to the discretion of territorial commandants and administrative authorities, who directed all their efforts towards this one object—the augmentation of the military forces of Germany.

Moltke's Memoir before alluded to, had laid down as the base of the military operations against France, the formation of three principal armies. Naturally, it was proper to bear that principle in mind in the selection of the lines of concentration, and the disposition of the railway network was calculated to influence to a great extent the grouping of the various army-corps.

The effective of the armies was designed to be in relation to the particular object to be attained, and the repartition of the army-corps was adapted so that all might be as promptly as possible ready for action. The 1st Army Corps (7th and 8th corps) on the right wing, concentrated at Witlich, between Treves and Cologne, numbering about 60,000 men. The 2nd Army (3rd, 4th, 10th corps and the corps of the Guard) in the centre, towards Neunkircher and Homburg, about 130,000 strong. The 3rd Army (5th and 11th corps) the Bavarians, the Badeners and Wurtembergers, on the left wing, towards Landau and Rastatt, numbering 130,000 men. A reserve formed of the 9th corps

combined (18th and 25th divisions) and of the 12th corps, in advance of Mayence (about 63,000 men) destined to reinforce the centre and raise up to 194,000 men the effective of the 2nd Army. The total of the three armies was to form an effective of 384,000 men.

The order for Mobilisation was given by King William on the night of the 15th-16th July, for Prussia and the States of the Confederation of the North; on the 16th for Bavaria and the Duchy of Baden; on the 19th for Wurtemberg. But all the details were so perfectly regulated that the telegraphic order emanating from the Royal Cabinet might, properly speaking, be considered simply as the instantaneous motion of a vast mechanism perfectly cranked or pinioned in every part, and ready to do its work.

On the 18th of July the order of battle was issued, and by the 17th the tableaux of march and transportation had been addressed to the corps d'armée, to which, on the 3rd of August, three armies should be united respectively on the positions designated to them, and ready to commence operations—that is, the 1st Army Corps under General Steinmetz, on the line of Sarrelouis-Merzig,—the 2nd, commanded by Prince Frederick Charles, at Volkingen, Sarrebrück, and the environs of Sarguemines; the 3rd, under the orders of the Prince Royal, on the two banks of the Rhine, round about Landau and Carlsruhe. Such was Germania's grand *battalia* in the front of Fatherland—"in cubic phalanx firm, advanced entire," if not "invulnerable, impenetrably arm'd."

At the moment when the transportation commenced, the prompt arrival of a considerable portion of the French Army inspired the German Staff with the apprehension that its opponents—as indeed had been provided against—would attempt some daring enterprise—such as immediately marching on the Rhine without waiting for its reserves. In this case, it was the concentration of the 2nd Army which doubtless, would be more particularly inconvenienced, for the troops could not, without danger, disembark from the railway under the eyes of the enemy.

Thereupon the Germans applied the dispositions foreseen for this eventuality in General Molke's Memoir, and the corps of the 2nd Army received orders to disembark from the railway on the Rhine. They were immediately to continue their march forward, but by halts in concentrated order, so as to be always ready for action. So the Germans renounced the service of a railway, the heads of the lines of which might get into the eventual radius of military operations.*

* The total number of trains employed was about 1,300, and this enormous transportation—suggesting to the imagination the irruption of Goths, Huns, Vandals and other barbarians of old was effected with wonderful regularity, and—strange to say—without any serious accident excepting a collision at Nordhausen.

During the war the German railways contrived to supply—without interruption—the necessary provisions to an army of 800,000 men. In the progress of the campaign, not only were the accidents that occurred very insignificant but also

Thus we see how the Prussians have utilized railways in furtherance of their great achievements, and it remains for us, in England, to study how they can be turned to account in our great problem of national defence in the dim future.

HOSPITAL STOPPAGES.

In the *Times* of the 1st of March, a writer on Soldiers' Pay quotes some words of Mr. Cardwell, as follows:—"We also propose that in cases where the medical officer reports that a man is in hospital from causes for which his own conduct is responsible, then the whole of his pay will be stopped."

This is not altogether as simple a proposition as it seems. It may be a very large proposition extending to an infinite variety of accidents, or it may be confined simply to one or two. "Who breaks pay" is a very excellent rule, and doubtless there is something to be said why the soldier who sticks himself with his own bayonet, or tumbles off his horse, or from a gun carriage, should suffer in purse as well as in person. Tradition has it that the Great Frederick always flogged a soldier who was thrown during cavalry exercises, and no doubt in many ways the military ideas of Frederick were excellent. But we are only half Prussianized at present, and perhaps the proposition of Mr. Cardwell may be taken as an intimation that in cases where the soldier wilfully injures himself, by the indulgence of any passion, as, for instance, by maiming himself in attempts at suicide, or injuring his digestive organs by over-indulgence in spirits or tobacco, or his system locally or generally by debauchery, he should have the whole of his pay stopped while in hospital. But we shall not err greatly if we still further restrict the sort of cases which Mr. Cardwell's proposition is intended to meet. Attempts at suicide are hardly frequent enough to require special legislation. Tobacco poisoning rarely sends a man into hospital, and the drunkard being fined already for his crime, should hardly be exposed to a double penalty, by being

extremely rare. The same may be said with respect to unforeseen attacks on the lines in France, seized and worked by the Prussians. But indeed, the wily Prussians hit upon a very decisive plan for preventing such attacks and similar accidents. The military authorities put into each train some of the notable inhabitants of the country, who, in case of an unforeseen attack or contrived "accident" would have been the first to suffer. This measure—doubtless very cruel and unjust—produced the desired effect; and the heavy contributions imposed by the German commanders upon the towns and the localities in the vicinity of which an attack or a destruction of a line occurred, put a stop at one blow to such attempts on the part of the French. But besides this precaution, the German railway drivers contributed not a little to the diminution of accidents. They were thoroughly up to their business, performing their duties with the utmost zeal, and driving the trains with astonishing audacity on lines which were not under surveillance.

fined both when in and out of hospital. It is fair, therefore, to consider Mr. Cardwell as legislating against men who contract disease from sexual causes, and who ought to be punished for contracting it. There is a confusion as to the meaning of "responsibility" in the case of a soldier who contracts what we may call contagious disease. Of course if soldiers were exactly in the same position as young candidates for holy orders, the matter would be clear enough. A young gentleman in training for the ministry, would doubtless be very blameable if he exposed himself to the chance of getting diseased for the sake of indulging a passion for forbidden pleasures, and it would be right and proper that he should be punished for his misconduct. But it has not been customary to consider the soldier as bound by strict rules of morality. The idea has rather been that he has contracted to serve the State, and that in the indulgence of any passion he has no right whatever to disqualify himself from performing the military duty which he voluntarily undertook.

In the good old times (for in Army matters a few years only may be sufficient to warrant the golden appellation), the heads of the army had a good deal of consideration for their subordinates, although the conclusions they arrived at were of course antiquated and out of keeping with modern progress. They recognised the fact that England expected every man to do his duty, and also the other fact that, in spite of England, and honour, and duty, even in despite of religion, men would fall occasionally into temptation, and that the greatest captain or the meanest private would now and then think the world well lost for a woman's smile. In some places, for instance, let us say Bengal, a curious plan was devised which recognised the duty due to the State, and also the impossibility that a man should always be enabled to resist temptation. "Responsibility for the result of a soldier's immoral proceedings was removed from the soldier and thrown upon the medical officer." The writer remembers well the first occasion on which he became aware of this arrangement. It was in Bengal, in 1846, that one of the medical inspection days arrived, and about 1,000 men, all but stark naked, stood in the long lines of the barrack rooms, while the medical officer walked down the ranks, asking at intervals the usual question, "Any complaints." To his intense astonishment, a man stepped out of the ranks, and the following colloquy took place:—"Please sir," said the soldier, "I'm a man who wants to do my duty, and never tried to shirk it in my life, and yet I'm always in hospital." "Well," said the medical man, after listening to the nature of his ailments, "that is your fault after all." "I beg your pardon, sir," said the man. "It's yours." "How the deuce do you make that out?" retorted the perplexed practitioner. "Why sir," said the soldier, "there are 'women kept in the bazaar for us,' and I never go anywhere else, and it's your duty to see they are all right." "Take the man's name down, sergeant," said the doctor,

“for it’s a complaint against me, and I should wish him to state it in the orderly room.” It never was stated there, but an order was given that the medical officers should attend to the duty they had hitherto neglected, and for some weeks a horrible inspection of bazaar women took place on the dissecting table in the dead house of the hospital, to satisfy the idea of responsibility, in the conflict between military duty and animal instinct. That soldiers continued to contract disease was of course to be expected, and it by no means follows that the doctors were to blame. The privileges of the wretched caste of camp followers, taken under British protection for the accommodation of the soldiery, were too often invaded, and the system of free trade had dangers of its own. Punishment was sometimes tried to restrain the unlicensed traffic, and the soldier who could not denounce his accomplice had to make up all the guards and duties he had missed while he lay sick in hospital, and the unhappy female, if denounced, was exposed to the punishment of having her head shaved, and to be driven like a scapegoat into the wilderness beyond the limits of the cantonment. It may be acknowledged that in India, where this form of “Contagious Diseases Act” was first tried, that it completely failed.

Army reformers, men perhaps who considered the good of the soldier rather than the requirements of the State, began to advocate a new remedy for this unfortunate state of affairs, and “army marriages” were loudly advocated in many quarters. As to the benefits to be derived from the encouragement of matrimony, they were all easily understood, but none the less strenuously denied. The old school of officers were in many instances greatly opposed to marriage in the army. They considered marriage a very good thing, if there was plenty of money, but most undesirable otherwise. Love was all very well in a cottage, perhaps, but when it came to not even half a cottage, nor indeed a fourth part, but had to hide itself among the ragged curtains of a corner of a barrack room, then indeed the refinements of matrimony were not calculated to improve the condition of the British soldier. Indeed, sometimes commanding officers in the olden time hardly appreciated the intention of matrimony as a religious institution.

It may be some thirty years now since a very gallant officer addressed the astonished plaintiff in the orderly room of the regiment, in the presence of the co-respondent. “Shake hands, my men. Why, when I was in France it was the custom of the husband to take off his hat and thank the other gentleman for the compliment.” Of course commanding officers with these views not only did not encourage matrimony, but by their example and influence, actually made marriage in their own regiments most disreputable. But it is quite impossible to destroy utterly what is good in itself, and military men were obliged to acknowledge that the married soldier generally was a steadier, better behaved man than his unmarried comrade, while his services to the State were almost always to be

relied upon, when those of the bachelor were never certain. There was a theory, however, held by a few, that the married soldier was a less dashing soldier than the single man, but it never arose from any observations made of the conduct of British married soldiers in the field. No doubt extreme acts of daring and gallantry have generally been performed by unmarried men, but probably for the reason that they were young men carried away by impulse, and incapable, for the moment, of realising the danger or the risk they ran. The troops most likely to rush forward are possibly the most apt to be seized with occasional unaccountable panics, but of all the men who ever served, the men least likely to run away were the married men. As battles must in the end be won by those who will not give way, the influence of marriage on the character of the soldier is not to be despised. Of course army marriages were bad for the women comparatively. The woman generally gets the worst of it in all cases of matrimony, but the proportion of disadvantage was certainly largely in excess in the army of the olden time. Want of privacy, coarse companionship, and in bad regiments, every kind of temptation offered by men calling themselves officers and gentlemen, tended to produce black sheep among the married women; but, take them altogether, it was wonderful to see how pure the women remained. Of course they were good in a thousand other ways, and in accordance with the feminine nature, more patient and less selfish than men under difficulties. But it must be confessed that there were circumstances which rendered it undesirable that matrimony should be encouraged in the old army. The soldier's wife, considered as a nuisance, would prove an inexhaustible theme. It was impossible to carry them about with either comfort or decency.

The difficulty of accommodating large numbers of women and children in transport ships is very great, and on shore during a change of quarters matters are worse. Even when regiments were stationary abroad, the married quarters were mysterious abodes and centres of insubordination, which few commanding officers dared to penetrate. Few but the doctors got a glimpse of the code of female laws by which all the married women were bound, and which were preserved as sacredly as the old teapot and kettle which clattered and jingled in the baggage waggons from one end of the world to the other, and asserted themselves as English emblems in the sandy wastes of Hindostan, when every vestige of British articles of commerce had long faded away from the possession of the upper ten of the regiment. Many a general in India, who has faced shot and shell, and perhaps met undismayed the deputation presenting him with the freedom of a City company, has shrunk with undisguised terror from the offer of the doctor to exhibit to him the women's quarters at the annual inspection. It is said that Sir Hugh Rose did once assent, but that his first enquiry as to what the women wanted, was met by an immediate response from an old Irish lady

of nothing, barring he'd let them have a barrel of whisky on tap. Of course no general officer could expose himself often to such an unexpected fire as this. But a far greater obstacle to the encouragement of matrimony to any great extent in the British army was the question of expense. It was easy to see that matrimony was desirable, but impossible not to see that its consequences were pitiable, while the income of the married couple left little provision for the wants of a family in the time of health, and still less for the hour of sickness. Once, and only once, did the Army Medical Blue Book publish the statistics of the comparative mortality of the British soldier and that of his family in India. The disproportion of the death rate was too enormous to render it desirable to draw public attention to the matter, as of course public attention would only mean public invective and cheap denunciation, unaccompanied by the offer of a sufficient addition to the army estimates, to enable the military authorities to remedy the disastrous inconveniences of female married life in India. As for the disadvantages of married life in England, they were bad enough, but did not entail the fearful mortality experienced among the soldiers' wives and children abroad. The grievances were perhaps real enough, but not so apparent. Half-starved husbands and families, where the families were large, and generally a great deal of domestic misery, comprised the whole matter. Cases occurred every now and then, when comrades knew that a married man in difficulties, with a large family, had not tasted meat for a week, nor the wife, for a fortnight, and although, perhaps, that is the fate of very many of the same class, from which the soldier and his wife spring, still it is not to be desired that a "fighting man" should be out of condition, whatever may be the state of the wife and children. It was impossible to encourage matrimony generally, and it was most annoying that unmarried licentiousness should fill the hospitals with soldiers, and diminish the fighting strength of the British army. The idea of "responsibility" still survived amidst all this discouragement, but it shifted its ground a little. In the olden days, the responsibility (in India at least) lay with the "medical officers;" now it was attempted in England to shift it to "the police." The Contagious Disease Act was very little more than this, but it still remained an accepted theory that the soldier was not, and could not be, a responsible being in the matter, "provided that in matters of love, as in all other matters, he obeyed orders, and marched in the prescribed direction." To very many people, the grand idea of short service in the British army brought with it one great consolation. At last the difficulty of combining the obligations of Christianity with those of military service, would be conquered. With long service probably the matter could never have been thoroughly settled; but it seemed that with short service it never could arise. A few short years with the Colours, leaving a young man free to re-enter civil life and choose an honest decent girl for his wife, would, one would

have supposed, have rendered it quite unnecessary to make any provision for the cases of men in Hospital through their own imprudence. Of course, such things would now and then happen, but they would be very rare indeed. It was proved in pretty little pamphlets, to demonstration, that the best youth of England would flock to the standard to be instructed in all the military graces, and acquire the polish and refinement that culture, light, sweetness and foreign travel gave to the better born of the English community. Such young men cultivating their trades in the Army workshops, when not practising at rifle drill, might have been expected to refrain from debauchery, and as for honest marriage, surely they might wait for that until their beards had grown. There must have been a mistake somewhere, for the right class of young men have not enlisted. They are, doubtless, very excellent. A little delicate manipulation and alteration as to the arrangement of taking the measure of the chest, with the arms hanging down or raised above the head, has sufficed to secure most desirable recruits, although, perhaps, not of gigantic stature; and probably, if the hint of the Inspector-General of Recruiting be adopted, and a "little judicious relaxation" of Medical Inspection permitted, a steady flow of very good young men, will enter, and re-enter too, the British Army, and serve many useful purposes, until the country is ripe for conscription.

It is not necessary exactly to accept the statements of Mr. Cardwell and the reports of the Inspector of Recruiting unreservedly on the physical qualities of the present race of recruits, because they are rather suggestions than positive statements. In the "Times" of February 25th, Mr. Cardwell is reported to have said that, "the number of recruits who were rejected last year was small, that Commanding Officers approved of the recruits sent to them, and that the principal Medical Officers generally did the same, while the appearance of these recruits (who possibly were not all recruits of last year's enlistment) was so good that a person who was present at the last Autumn Manœuvres must be fastidious indeed, if the sight of their perfection did not reconcile him to every branch of the British Army." If the reader will turn to the Report of the Army Medical Department for 1870, at page 32 he will find that there are differences of opinion on some of these points. Inspector-General Dane reports: "I have observed with regret the absence of physical vigour in the frames of many of the young soldiers in the command as contrasted with the men of former years," and it is worth while for any one who really takes an interest in the Army, to study the remarks on the physical vigour of the recruits offering themselves lately, which appear in the Medical Report for 1870 (published 1872). If the reader will consider the observations made at page 46, he will feel himself at liberty to withhold his cheer for the present Army which Mr. Cardwell hopefully demands. But let the present recruits be as desirable, physically, as they are presumed to be by Mr. Cardwell, still they are not what might have been expected in

point of morals. Of course, it is in the power of any gentleman to take up the Blue Book, and contradict this if he takes results as evidences of morality. There has been a decrease for instance, in the admissions, from a certain class of diseases, but the reader (if non-medical) is requested to be cautious even about statistics. In the Medical Blue Book, a tremendous amount of disease due to immorality lies veiled and hidden under the decent nomenclature of Urinary disease, and, to some extent, the disease due to immorality may be said not so much to have diminished as to have disappeared from public observation. It may be some knowledge of this melancholy fact that has prompted Mr. Cardwell to re-burnish the idea of "Responsibility, and cause it to be thrown directly upon the soldier himself." The doctor cannot be trusted, nor the policeman, nor even the unfortunate on the streets, to look after the unhappy soldier, and it would appear that Mr. Cardwell proposes that he should be made to look after himself, and that he should be fined for immorality, if he prove "immoral to a diseased degree."

The proposed arrangement is based, probably, on the conviction that the State and the Public Service should not suffer from the consequences of the soldiers' wilful acts, and, on that ground, there is very much to be said for it. The civilian workman loses his wages if he absents himself from his work for causes over which he has no control whatever, and it does seem hard, that a soldier should indulge himself to any extent in vice, and, while in Hospital, accumulate a store of public money, to be spent in fresh indulgence immediately he is returned as fit for duty.

But, it is impossible to disguise from ourselves that Short Service is at present "not a reality," but, to some extent, "a sham." Six years is a long time for enforced celibacy, and after all the six years' service applies only to the Infantry, and not to the Cavalry, the Royal Artillery and the Royal Engineers. It would be impossible to expect any body of men to submit to enforced continence, unless they were locked up in jail. They will either marry or burn. The Military Settlers, enrolled for seven years at the Cape of Good Hope, could not annihilate nature, although their temptations were less than those to which the British soldier is exposed. The great anxiety expressed by the Governor of the Colony was to provide them with wives, as was stated pretty distinctly in his despatches, where he declared his fear that his Military Settlers would roam the whole country in search of females. Let it be taken as granted, that soldiers of even the present length of service cannot be expected to refrain from immorality, and the next question is, How will he gratify it? To expect that the fear of a stoppage of his pay will restrain him would be childish absurdity. But he may alter the nature of the indulgence. It is bad to have to look at such an alternative, but it is no good to shirk difficult matters, nor is it wise or honest to shut one's eyes to consequences. Probably the British soldier would not degrade himself, but he might be expected to seek

his female companions among a class which at present comparatively escapes. The fear of Hospital Stoppages added to the dread of Hospital itself, may just be sufficient to induce a soldier in his cooler hours to reflect, that it would be better and safer to be a seducer than one of the seduced. To be sure, punishment might meet him here when the soldier is made responsible for illegitimate children, but it is far more easy to deny paternity than it is an actual physical disease in the wards of an hospital. It is also possible that the soldier may not take the trouble to reason at all about these things, but continue pretty much in the old course of his gregarious amours; but the loss of pay consequent upon Hospital Stoppages may then add one more bitter drop to the cup of the unfortunate who has shared his pleasures.

The thought of revenge for the communication of disease is not altogether unknown to the British soldier. The writer can remember one man dying in hospital who sternly expressed his wish, not to die, in order that he might take the life of the woman who had brought him to such a pass. Many a man, probably, will think himself justified in having it "out of somebody," if he has lost his money and his health too. One probable effect of Hospital Stoppages will be, a sense of injustice raised in the mind of the man who has his pay stopped. He will not consider it fair, that he should pay for his "bad luck," while his comrades, who have run exactly the same course, should escape scot free. He will understand perfectly that he is fined, not for immorality, but for being "unlucky" in his immoral course. There is not the same objection to the fine for drunkenness, for the craving for liquor is an acquired taste which he knows well enough he has fostered himself, while the desire for female companionship is part and parcel of his nature, of which he cannot divest himself if he would, and which he is not permitted to indulge in legal and honourable ways. Nor must it be forgotten, that under the system of Hospital Stoppages in the cases alluded to, the tendency to conceal disease will be greatly increased. All soldiers have a tendency to do this, whatever the disease may be, and very often because they are good soldiers. Men who are men don't like throwing additional duty upon their comrades, and will remain in the ranks from a sense of honour, even when their natural dislike to go to hospital has been overcome by their sufferings. This attempt to conceal disease may amount to heroism sometimes. The writer remembers a fighting column being sent out from "Morar," and it was not until two days after the men had marched that the medical officer in charge found out that one of the men had broken his arm the day before the troops left Morar, and had concealed his sufferings in order that he might march with his comrades and avoid all suspicion of shirking his duty—probably this very man (one of the gallant 13th Light Infantry) could not have been made to understand that the concealment of contagious disease was in any sense dishonourable, al-

though his own sense of military honour must have been very keen. Men generally in the service hide these accidents as long as they possibly can, and there is, of course, more than one danger in such concealment. Constant medical inspection would become imperative if the inducement to hide shameful diseases should be fostered, as it certainly would be by the certainty of Hospital Stoppages, if the culprit were once sent into hospital. Probably this increased supervision would be extremely distasteful, both to the soldier and the medical officer, and it is very likely that the medical officer might find himself even more uncomfortable than the soldier himself. One of the most difficult things in the world is to convict a malingerer, or, rather, to punish a convicted malingerer. Medical men are but men after all, and the crime that depends upon medical evidence alone for conviction may have a good chance of escape. It is impossible to over estimate the absurdity of a court-martial on a man who had refused to acknowledge his disease as really due to a specific poison. The Director-General of the Army Medical Department might tremble with anxiety when "the friend" of the prisoner suggested the points in dispute as to the exact nature of the disease in question. But before all, and beyond all, lies the great question whether the stoppage of the whole of a man's pay, in these cases, is likely to reconcile the recruits of the present day to service in the Army. Let it be granted, if Mr. Cardwell wishes it, that the recruits now come in fast, and don't run away very much, but let us recollect that they do not come in "very" fast, and that they do run away "a little," and on these considerations alone let us hesitate, before we consent to stop a man's pay who is in hospital from causes for which his own conduct is responsible. No doubt it is very just to inflict the stoppage—the married soldier can see the justice of it, but then he looks at the matter from only one side of the question; the military chaplain can see the justice of it, but, after all, when he visits the wretched patient he must not advise him to marry; the ratepayer can see the justice of it, but he dare not say to the man who contracts contagious disease, "Go about your business, there are plenty of others to take your place." On the other hand, many a sinner in the ranks will not see the justice of it, and if discontent spreads in the Army, even the savings made from Hospital Stoppages "will not pay."

THE SOLDIER A "BEAST OF BURTHEN."

BY J. E. ACKLOM, LATE CAPT. 28TH REGT.

With reference to a letter in *Colburn's United Service Magazine* for December, 1872, under the above heading, touching especially upon soldiers' knapsacks, I would further ask, What would be

thought of a man who hired ploughmen, or labourers, or gardeners, and sought to prepare them for the laborious duties of their several callings by such a pre-arrangement of their liable to be "overtaxed" bodies? Why a madhouse would be considered as too fraught with good sense and reason for such an individual. What! "confine a man's limbs with straps and buckles, and then throw him into deep water to struggle for his life, able swimmer though he may be?" for that is about as reasonable a proceeding. Talk of madness, indeed! why it would be little short of murder, and yet we witness a proceeding nearly similar whenever contending armies are exchanging angry shots—and it is quite possible ere long (when foreign nations get their eyes open in this matter) that a regiment of our gallant fellows may have to encounter in a death struggle foot to foot (for such things do happen) with a foreign regiment in wise possession of all the advantages of the system I advocate—what would be the (to us) sad consequence? Why the "weighted and strapped" must go down before the free limbs and unencumbered body of his antagonist. The same disadvantage attends "file firing" in a great degree. What is the use of our scientific schools of musketry?—the man stands alone and independent when firing at the target, but when his teaching is brought to a sanguinary trial, the loading and sighting, and aiming has to be carried on amidst the bumping and pushing of his own and his neighbours' packs. Who would equip sailors with packs, and then pipe them aloft to reef top-gallants, or handle musket and cutlass? and yet this is the system taught during peace, to prepare the soldier for a life and death conflict, involving, in a general sense perhaps, the most vital interests of the country. When a horse is obliged to be weighted for a race, with what consummate care, how scientifically, how delicately is it done. Why a common soldier's pack strapped behind the jockey's saddle, swaying about, would cause the powerful but heart-broken animal to be left beyond the distance-post, whilst the free limbs of his adversary had carried him far away beyond the winning goal. Many a time, during the midday halt in a village on the line of march, have I been amused at watching the rough country lad—our best recruit—the daily toiler for scanty earnings, lift the soldier's knapsack with a keenly appreciative, expressive grin of "fine feathers make fine birds, but I'll have none of your feathers with this thing strapped to my back the livelong summer's day." Take the advice of an old officer:—let the half-inclined young bumkin, when admiring the gay clothing, listening to the inspiring music, and considering the increased and certain pay and comfortable rations, lose sight of the heavy, awkward pack, and be not alarmed, your ranks will fill fast enough. With these facts in view I would venture further, and offer for the opinion of those of the military world who possess brains to think, tongues to speak, power to advise, and, better still, inclination and power to act, the following additional proposals, viz.—That the light iron vans accompanying marching

bodies of men should not only carry knapsacks and rations, but be fitted to act as a moving barrack, to "home" and feed the men, giving them dry ground to sleep upon, fuel to cook, &c., &c., enabling the Government to abolish the system of billeting, so repugnant to "soldier-hating" John Bull (except when the fear of invasion is upon him), and render a body of armed men traversing the country independent of all extraneous aid, comprehending within itself shelter, bed and kitchen, setting up its temporary dwelling, not in or near a "public house," but near "fresh water." But to the point, few there are who are not aware of the properties of the huge tent; equestrian circus masters completely shelter their full-dressed (often delicate ladies and children) box audience under—immovable, impervious to storm and rain—erected in a very short space of time by but a very small party of men, comparatively speaking, and with all its adjuncts of canvas, stabling, property-room, domiciles, dressing-rooms, &c., &c. Now let us see how it would be possible to construct a somewhat similar but far more portable tent, so fitted and arranged as to administer to every necessity and comfort of a certain body of men (and a very considerable body) on the line of march. Given the waggon, as described in my last article on the subject, of light sheet iron of the full size of the largest "show" caravan road locomotive will admit of—when arrived at the piece of ground selected by the advanced party, a grazing field, a common, or racecourse, &c., take the horses out, picket them, then, by means of strong screw brackets at the corners of the waggon, erect four short strong upright poles, surmounted with longitudinally-pointed roof frame piece, disembody from the interior a strong simply made canvas covering, throw it over the top of the waggon—which thus becomes a firm stay and central support, as well as the kitchen and storehouse of the whole—extend the canvas covering outwards on every side, stretching and securing it, not by means of "pegs," to which all sorts of misfortunes at the most unfortunate, inopportune moments are always more or less sure to happen, but by a sufficient number of small, light, anchor-fluke holdfasts, like a pointed shovel, with a short handle or shank and a pocket-knife hinge and stop, so as to fold down upon the shovel blade for convenience of carriage, but, when wanted to open out at the proper angle, having an eye to receive the tent cord, whilst the sharp pointed, broad, concave surface of the shovel holdfast, driven into the ground with the foot or the back of an axe, gives a far different hold to that afforded by a dozen tent pegs; the large tent roof is thus firmly anchored out to its full extent, its edge being some three or four feet from the ground, from whence a perpendicular curtain falls to the ground, to which it is made fast with the usual pegs, completing a tent sufficient to protect a great number of men, for every individual of whom the same waggon supplies an Indiarubber or gutta percha sheet and a blanket, which, in addition to his great coat, with his knapsack for a pillow, will afford the soldier a far preferable night's rest

than he usually meets with in his billet-begrudged, flea-breeding, holes and corners. The somewhat flat boilers being suspended under the caravan, and moving upon a sliding bed, can, when wanted, be pushed out to the rear, with two hinged iron legs to fall and support the exterior end, so as to enable the necessary fire to be kindled underneath. A light iron chimney flue, in joints, could easily be put together through circular brackets, up the rear face of the van, protruding, with the usual safeguard precautions, through the top of the tent. When necessary, it would be an easy matter to procure a supply of wood billets at the last village, and in the event of a cold or wet march, a jolly fire might be kept up all night. Everybody knows the "warmth of a tent" under such circumstances, particularly when saturated with rain. Let the soldier imitate the gipsy, in fact, on a large scale, and avault for ever disloyal grumbling, public-house contracted disease, damp sheets, &c., evil intercourse and iniquity. The marching soldier might then well be called the merry soldier. Roused up from his warm, healthy night's sleep, and stripping to bathe in the stream near at hand whilst his coffee was boiling, with a supply of rich country milk to add to it and wash down an ample ration of biscuit and butter, previous to resuming his "light-backed" and therefore light-hearted march, with his "marching home again" behind him. Impossible, cries old heartless, prejudiced, iron-fisted red tape! no such thing. There is not a grain of impossibility in my soldier's "line of march" house; and, instead of the usual marching money (for mercy's sake don't stop it!), let it go still further to increase the comforts of person and stomach of unencumbered, lightly burdened, merry marching John Sentry Box, and of his attendant four-wheeled hotel. Let the comparatively light worked and well paid lower orders of the present day lose sight of the weary sweating soldier, hitching up and cursing the heavy burden to which he is "tied," and, believe an old soldier, there will be far more recruits. Moreover, once quit of the chest-compressing fatal burden, and death will no longer thin your ranks to such an extent as it does at present. Should my idea be followed up, (I say it with all humility, happily for the country, the Chancellor of the Exchequer, and last, but far from least, *the poor soldier himself*) for as long a time as may be necessary on its first establishment, attach a couple of gipsies to each caravan—they will soon teach their red-coated companions how to camp out, cook and enjoy life, under circumstances far superior to those which satisfy the utmost desire and necessity of the poor, often aged and infirm gipsy man, or gipsy woman, with her brown, healthy, infant brood. No headaches, no empty pockets, no disease, no discontent or political rascality and democratic principles, to be picked up "under the greenwood tree." With all due respect to "*the powers that be*," I trust I may have set the stone of public opinion rolling, and that with assistant kicks of far superior calibre and propelling strength, it may never stop until it rolls the knapsack (filled with

bitter curses) off the poor soldier's hitherto heavily-laden shoulders, to rest for ever amongst the queer, senseless, old-fashioned "war lumber" of the past!

THE NAVY ESTIMATES.

Nothing can be more flat or uninteresting than are the Naval Estimates for 1873-74. They shew an increase verging upon half-a-million which was expected and was known to be unavoidable; and this increase has been reduced by various artifices, by a pinch here, a screw there, and a general nibble everywhere, to about three hundred thousand pounds. If the power of preventing an increase, and maintaining the estimates at a certain figure was the highest effort of naval policy expected from a Board of Admiralty, it may be fairly congratulated upon success; for wherever cutting down can be resorted to, it has been adopted; and no sentimental views, or tender attention to grievances of any kind, has permitted the unavoidable increase to outstrip the limits imposed by strikes and the coal famine. The whole increase may, therefore, be properly attributed to the increased cost of labour and stores; no less than £136,000 is devoted to increased pay at the dockyard, and the remaining sum represents the increase of stores under Vote 10. Coal alone will cost no less than £60,000 more, and every class of store is increased proportionately, except hemp, which, for some reason which can only be guessed, shows a decrease.

So the Estimates may be explained: they are dull and uninteresting, both to naval officers and outsiders, and are nothing better than a *rechauffée* of the votes passed by the House of Commons for 1872-1873. The public may pass them over with either indifference or disgust; it has obtained no satisfaction in the shape of a reduction of its "bloated armaments;" and the service may pass them over with equal indifference and disgust; it finds that its interests personally have been totally ignored, and can see no hope held out that they will ever be seriously considered. Such a standstill policy may, possibly, be acceptable at the present time, but, if so, it is contrary to all experience and to what the country has a right to expect. There is the excuse which will be readily admitted, on all hands, so far as it is valid, that the disturbances which ushered in the entry into office of the present administration, demand for the service a period of repose; but this repose is now becoming perennial, and even if really a satisfactory policy, the publication of a voluminous statement of estimates with a long speech from the First Lord would be, altogether, unnecessary. For some years to come, until some recon-

struction of the navy were demanded, or a war broke out, a merely formal statement that the estimates for the coming year were only fractionally different from those which were in force, would serve all purposes.

But we regard this stagnation as dangerous. There are many questions which require to be settled and where settlement would affect, materially, the estimates. To say, for instance, that the retirement scheme had worked to everybody's satisfaction, and that officers in the service, as well as those who had left, were perfectly satisfied, would be very absurd. No question, perhaps, has demanded more prominent attention, and would have affected the estimates more seriously, had it been attended to. So vital are its defects that it has hardly pleased any but a few officers, who, through some accident of service, are able to turn it to their advantage. Yet what attempt is made in the estimates for next year to provide for the defects of this scheme? Literally, nothing. To judge by the figures which the House will be asked to sanction and approve one would imagine that nothing had been more successful than the process which time has been left to work out or prove; and that, besides guaranteeing satisfaction to the service, the country had every reason to be satisfied that it was fulfilling its duties to the service if it were not thoroughly assured that, in what it was doing, it was consulting its own interests. As a fact we know that promotion is as stagnant as ever, that the lists are not cleared as they should be, that an almost too sharp and rigid line determines the process which settles where lopping shall commence and development shall begin, that retirement works unevenly, and that, as a whole, the scheme commenced a few years ago, at a great cost and considerable personal annoyance, holds out little better prospects to ambitious officers than in the worst days of stagnation and overflowing lists. No one doubts for an instant, that to remedy these evils, and adjust the little differences which mar the even working of retirement, must necessarily compel a further outlay of money, and that to ensure the results so confidently expected at first, the boon proposed and held out as a bait to senior officers must be dangled before the eyes of those very down in the lists; but the coming estimates hold out no hopes that these accidents, which are certainly not of a trifling nature, are to be adjusted in any other way than that of allowing them to settle themselves.

Then, again, the general outcry raised through the country, of the insufficiency upon all incomes to meet the demand for a moderate increase of modest emoluments, has been ignored, as totally, as though to urge such a suggestion was an insult, not only to the government but to common sense. We know that *bankers* with the most indifferent business and the smallest and inery, have felt the severity of the pressure and responded strengh according to their power. But what answer is given in

these estimates to the dumb expectancy of the naval service and the large body of civilians connected with it? Nothing: literally nothing. So far as they teach any lesson, it is that incomes may be small, but that either a slight increase would be valueless or undesirable. How slight the increase is which would be acceptable, it is known too surely; but slight as that increase would be, its total cost would reach a large sum and would compromise the wholesome character for economy which is now so highly prized. Yet an increase to incomes is shewn and it amounts to a sum of £130,000. But, if this extraordinary concession has not been wrung out of grudging hands by clamour, persistency, and political pressure, it is difficult to understand how it can have been obtained. This handsome subsidy is applied to increase the pay of our dockyard workmen. They at all events have been to a slight extent appreciated; and large as the sum is which is applied to their relief, will any one dare to doubt it has been given before necessity absolutely compelled the concession? While labour has been gradually rising in cost over the country, and skilled labour has been, in many instances, able to command its own terms, we know too well, that our naval workmen have suffered cruelly and undeservedly on no other grounds than their work for the government. In spite of all the very proper remonstrances which are urged on the other side, that the work at our dockyards is regular, and that pensions loom in the distance, it has been felt for long that these artisans had, for a very long period, been placed at a considerable disadvantage with the trade, and are now to reap a very inconsiderable recompense for injuries they have suffered in the national service. And, large as is the sum which it is proposed should be given to this class, it represents, individually, but a small addition to their scanty remuneration.

Another question has waited for not less than four years a solution. We have heard much of reserves; of the insufficiency of the present naval reserves we possessed; of plans set on foot to organise a sort of naval militia or volunteer force, thoroughly worthy of the service and the country; and were led to expect that this year would see a definite attempt made to consolidate the reserves we possessed and extend, by some simple means, a love of the service which is the mainstay of the nation. But we need hardly say, that the estimates may be ransacked from one end to the another for any sign of an attempt to carry out any scheme, of a character either general or comprehensive. To have attempted anything of the kind would inevitably have led to an increase of the estimates. We say inevitably; for it is tolerably well-known that the reserves which exist are at their lowest working power, and that any increase to those which exist, leaving altogether out of consideration what might be attempted, must infallibly swell the Naval Estimates. Does any one pretend for a moment to say that the Royal Naval Reserve is as satisfactory as

it might be ; that its numbers cannot be kept down, or that its efficiency is at all on a par with its zeal ; or that the Coast-guard is maintained in a manner and at a cost which will secure its highest efficiency ; or that even our harbour-service is utilized in the best possible manner ? We know that this is not the case, and that many reforms are necessary in all of their branches ; but, then, these reforms cost money ; and next year we may look in vain for an outlay which will secure the advantages desired. We have not mentioned the Coast Volunteers or the Pensioners' Reserve ; for they are small and have not been the subjects of many efforts. But to suppose that a field for improving our available reserves is not to be found in this direction is absurd. The only reflection which can possibly suggest itself is that their improvement would be exceptionally costly. And lastly, as to organising that new reserve from our coast boatmen and fishermen, it requires no more than the passing remark, that nothing whatever is to be attempted. As a great humourist was in the habit of remarking ; " Why this thusness ? " Why indeed ? The answer is of a most simple and straightforward character—to the effect that every such effort must cost money, and that the time for spending money has not come yet. When will it come ? From the tone of the service and the gleanings which may be picked up by the loungee at any of our great ports, one would imagine that this desirable sort of millenium is to be expected with the advent of the Conservative party to power. But this has too empirical a sound ; tastes too much of the disguised and unwholesome flavour of the nostrum ; and rings too surely with the uncertain chink of false coin to carry much weight. It would be, indeed, a fatal error in our system of government, if each party, as it came in, was to be credited with the unmistakeable policy of either spending or saving. Extravagance and economy are capital watchwords in the heat of a general election, and sound well upon the hustings, but we decline to think that the two great parties in our parliamentary system are to be accurately recognised in such general terms. Much, however, that has marred our national policy in regard to the Navy has proceeded from a partial recognition of this shibboleth. There is a large following of those who would urge that spending money, no matter how, must be extravagance, and that saving expenditure must be economy ; and there is cause to fear that such plausible mistakes have had a baneful effect upon the service. Money has, we know, too well, been saved at the expense of the service, and been spent as rapidly, if not thoughtlessly, in endeavouring to repair the error. True as it is that the country does not grudge money to keep up the Navy, it is also true that it has a sneaking affection for a reduction of the Estimates. But few thinking men doubt, certainly none who have had anything to do with the careful consideration of the public expenditure, that such a criterion of good administration

is terribly fallacious. In all large services, expenditure is apt to be capricious, and but little carelessness is required to increase an unnecessary outlay, as but little ignorance is necessary to make a reduction where effects may be most disastrous.

We now come to what is always considered the most serious item in the cost of the Navy. The ship-building programme for the year is always most critically scanned, and is perhaps made by the Government the subject of the most scrupulous revision and careful consideration. To determine how far existing vessels which are under construction are to be continued, how far repairs of vessels afloat will be necessary, how many ships which have been launched require completing, and what new construction to commence, requires more thought and is naturally productive of more anxiety than any other item of naval expenditure. Every addition made to the navy has not merely to be considered with reference to its first cost, but to what extent future years are compromised, and their proper expenditure, so to speak, mortgaged on its account. So an amount of balancing contingencies and of careful thought is required for which we and the public are not as a rule disposed to give sufficient credit. In illustration of what we have said we are reminded by the loss of one of the most indefatigable earnest friends the Navy has ever possessed in Parliament. The death of Mr. Corry has removed from public life a statesman whose earnest efforts, combined with special knowledge and aided by an experience of public and naval life spread over the best part of half a century, were of the highest value to the naval service. But, in regard to ship-building he was more than usually energetic when in office and exactingly critical when in opposition. When last in office he found that from one cause or another, whether from motives of economy or of uncertainty, his predecessors had allowed the rate of ship-building to fall below even a standard necessary to repair the ordinary annual waste. Mr. Corry was forced to adopt one of two measures; either the sensational policy of setting on foot an exceptionally large amount of ship-building, or of passing on the disagreeable task of making up arrears to his successors. However, Sir John Pakington and Mr. Corry applied their efforts to ship-building, and, as a necessary consequence of this policy and the short period of Conservative administration, the next three years were inevitably engaged to carry out the exceptional rate of construction which had been commenced. To begin now as to the value or the imprudence of such a policy is useless and a waste of time. On the whole we are inclined to believe that what was done was, under the circumstances which then existed, the best for the country and the service. The criticism of such a policy as "sensational," or as burdening the country with quantities of big ships which might be useless before they were completed is very superficial and cannot be accepted as convincing. The policy of leaving ship-building alone is far more dangerous, as the equally

superficial criticism that economy is the result and the country relieved from unnecessary burdens, is simply misleading. That it may have been, under the special circumstances of 1867, undesirable to lay down ten new iron clads, and, under ordinary circumstances would be unjustifiable, such an act was not half so sensational really as the fact that for three previous years hardly any ironclads had been built at all.

Mr. Childers who, perhaps, more than half sympathized with the unenviable necessity forced upon his predecessors while he was compelled, politically, to condemn it, saw how dangerous such uncertainty was, and knew well enough that accident at any time could determine who should suffer by it. He therefore calculated very elaborately, the minimum rate at which ship-building should be maintained every year and found that, at least, 20,000 was the average number of tons which should be provided for; this he decided should be divided in a certain proportion between contract and dockyard construction. Since then this rate has been with tolerable steadiness adhered to. But the progress for the last three years has been very slow—slow enough to induce us to believe that either the defects in wooden vessels require an exceptional amount of attention or that we are falling below the standard. Last year, at this time, the two ironclads 'Thunderer' and 'Rupert' were launched; and since then, hardly anything has been done whatever to increase our force of ironclads. The lapse of a year is a long time in the history of the navy; for its needs require daily care. Certainly an attractive programme was laid down. In this dockyard two ironclads and some wooden vessels, and a torpedo ship were included: and up to the present time what has been done to them? It would be nearer the truth to say that, really, nothing more had been done than to name, precisely, any quantity however small, as an evidence of progress. Curiously enough, on turning to this year's programme, it seems to be little else than a transcript of last year's. The 'Fury' which was commenced at Pembroke four years ago, is to be proceeded with, and a new 'Fury' commenced. Then there is the 'Temeraire' which was proposed last year and has not yet been touched, which appears again as a novelty. The 'Blonde' is being proceeded with. The 'Superb,' although every one has heard about it and read about it, for more than a year past, is still a novelty but has actually been commenced. Lastly, it is proposed to commence a new ironclad, which is represented by a series of dashes, expressive we presume of the complete ignorance of the Admiralty as to what she will be like. Perhaps she is to be a second 'Peter the Great,' or she is to be something entirely new upon which the brain of the re-organized Constructor's Department is now busy. Perhaps she is to be nothing at all; and this seems more probable, if we may judge from past programmes of naval construction; if so, it may

be an attempt to carry out the suggestion made in the House one day, when, in answer to a question as to the reason of leaving certain vessels on the stocks for years without being touched, the First Lord for the time being said that delay seasoned their timber and that, their appearance in the Navy List was as effectual with Foreign Powers as though they had been built and were afloat. The remark which followed this explanation was to the effect that, if putting ships in the Navy List was all that was wanted, there was no necessity even to lay their keels. Anyhow these dashed ships have a peculiar look, and are apparently, like some bills or petitions, laid on the table of the House for form's sake. Last year, three good ships were launched, the 'Thunderer,' the 'Rupert,' and the 'Raleigh.' The two first were ironclads, and the last was a frigate of the 'Inconstant' class. The 'Thunderer' was completed as a practical commentary on the report of the Committee upon ships' designs, and is a second 'Devastation.' One of the most remarkable points about her was that she was launched in the old fashioned way from a slip at Pembroke Dockyard. These ponderous vessels have, as a rule, been floated out of dock, not only as a measure of precaution, but because such a process is simpler than launching. The difficulties encountered in launching the 'Northumberland' and the 'König Wilhelm' was a sufficient ground for preferring "floating out" to launching. However the 'Thunderer' was a great success, and no one who saw her launched will forget the sight of 20,000 people gathered from all parts of Wales and the West county, and their excited state when for a moment there was a doubt whether she could be stirred. However, three more ironclads at least are to be treated in this manner, the 'Fury' and a sister vessel which are to be built at Pembroke, and the 'Superb' which is to be constructed at Chatham, on the slip from which the 'Raleigh' was launched only a few weeks ago. In addition to these ironclads, it is proposed to continue some wooden vessels; so the 'Boadicea' and 'Bacchante,' and 'Blonde,' will be progressed with. These vessels, are like the 'Raleigh,' and in size and speed, on a medium between the 'Active' and the 'Inconstant.' When they are completed we shall possess a small squadron of the fastest cruising vessels, for the armour they carry, known in the world. The 'Inconstant,' 'Active,' 'Volage,' 'Raleigh,' 'Boadicea,' and 'Bacchante' and 'Blonde,' will form a body of cruisers, unarmoured, but carrying a heavier armament than any wooden vessels of their size. The value of this kind of vessels was much doubted a few years ago, and it was thought that the failure of the 'Wampanoag' to come up to the expectations formed of her, had finally condemned the construction of large wooden frigates. However, the steady success of the 'Inconstant,' induced party critics to waver as to the correctness of their judgment, and the Committee of designs to pronounce her a valuable class of vessels in war. The

history of a new class like this is profitable and entertaining ; and the struggles to obtain for it a place in our navy are not unlike the efforts of a company to obtain a quotation on the Stock Exchange, or to protect itself from the assaults of " bulls," and " bears." First news came of a wonderful vessel, the ' Wampanoag,' built for the United States from designs by the Chief Constructor, Mr. Isherwood. As a matter of course it was next taken for granted that we had fallen behind in the race, and the mere fact that this new vessel promised to do wonders was a sufficient guarantee that she would promise what she would perform. So we immediately set to work to build a second ' Wampanoag ' which, with a curious suggestion of criticism we nicknamed the ' Inconstant.' Now it is as well to remark that we had thought of such a vessel before and had considered seriously the advisability of continuing the construction of wooden vessels. Naval men had one after the other repeatedly urged the advisability of increasing the number and improving the character of our frigates. But the iron fever was at its height, and nothing but ironclads would serve in case of war ; iron had condemned wood, and for frigates there was nothing in view but destruction. Immediately, however, another nation took a different view and commenced building wooden as well as iron men-of-war, our convictions were swept away ; we were being outstripped in the race ; and with a proclivity which is nothing if it is not national and never shews itself as a national peculiarity so forcibly as in matters connected with the navy, we must immediately commence wooden shipbuilding. So the ' Inconstant ' was commenced. No sooner was it built and tried and found even more successful than had been anticipated, than doubts began to arise whether it was not too large and too costly. Ship-building theories of the old fanciful character were advanced by that very persevering class of quidnuncs who think that persistent assertion sufficiently compensates a want of scientific knowledge, and that a power of expression or a fair political position abundantly make up for an absolute ignorance of professional principles. So we had the old nonsense of building small swift ships with heavy armaments vigorously asserted with all the solemn gravity and serious assurance of profound ignorance. " What we want is a small vessel, of great speed, carrying a *few* of the heaviest guns " was their cry. Where the engines were to go, or the guns were to be carried were matters too immaterial to trouble their placid conviction. That powerful engines for modern-men-war are necessarily enormous and that guns of the heaviest class are necessarily larger than 68-pounders—that to look to the engine space was essential—and to train heavy guns a large platform was necessary, were matters of detail which did not affect their argument in any way. The misfortune was that the combined gravity and position of these quidnuncs had its influence in spite of the remonstrances of professional advice ; and, as a result, the ' Active ' and ' Volage ' were constructed. They were built on a scale much smaller than

the 'Inconstant' and were a compromise between unprofessional theory and professional recommendations. They are good vessels, with a tolerable speed and with good armaments, but they contain, beyond a doubt, the defects predicted of them. They, in the first place, want the speed which would enable them to distance any rival with as heavy an armament, and their armament wants the heavy maindeck battery which is a special feature in the 'Inconstant.' Added to these defects, it is found that such vessels are so small and finely built to stand the wear of their powerful engines.

During their construction, however, another source of alarm agitated the Admiralty, and cast doubts on its policy of continuing wooden ship-building in any way whatever. The wonderful American vessel, the 'Wampanoag,' which had aroused the energies of the Admiralty and had given an excuse, if not to the enemy to blaspheme, at all events to unfriendly critics to abuse the tardy indifference of the Government to modern progress and foreign enterprise, all of a sudden collapsed. The speed it promised was not fulfilled; its armament was nothing marvellous after all, and its best friends were chary of speaking of it, as even a desirable type to continue. The enemy was soon, again, on the alert. Wooden ship-building was rubbish. We were wasting money in increasing our stock of vessels which could be of no possible use in war. That love of imitation for which both criticism and government has, in this country, so profound an admiration, sprang to life in an instant. As, in hot haste, the 'Wampanoag' built by the Americans had induced us to commence the construction of a new class of vessel, contrary to our inclination or rather perhaps our prejudices, so its failure was considered, without further investigation, a sufficient reason for us to forego any continued construction of wooden vessels. Our energies were, therefore, devoted for a time almost exclusively to ironclads—not however without slight misgivings as to the propriety of our course—misgivings having their origin in the continued fidelity of the brave 'Inconstant' to her promises, and to rumours, founded on actual investigation, that the failure of our American rival was due not so much to faults in design, or to an inability inherent in such a ship, to fulfil the terms promised on her behalf, as to positive faults in construction. It was found on the one hand that our vessel entirely satisfied all the expectations which had led to her construction, and prompted the building of the 'Active' and 'Volage,' but that in her American prototype, the hull was badly built, the engines were indifferent, and the armament feeble. Added to this, naval men began loudly to insist upon the advantages of well-armed, swift, iron-built, wooden-cased cruisers. So the 'Raleigh' was built and the 'Boadicea' 'Blonde,' and 'Bacchante' were commenced.

To pursue this subject of ship-building a little further, for

really, the Estimates, are, except in this particular almost destitute of interest, it will be, perhaps, interesting to show what is the actual ship-building programme for the coming year. In the first place, the vote for stores shews an increase of nearly a million and a-half, and for machinery and ship-building nearly the same amount. Whether large contracts are to be entered into this year or not for new vessels it is impossible to tell from the Estimates; possibly the increase may be due merely to increased prices. In the case of the vote for stores it would seem that this is altogether the case. It is not very likely that it is proposed to furnish the dock-yard with larger stocks than usual; and, as the number of men to be employed on ship-building is less this year than last, it is hardly possible that the rate of construction is to be increased; so the increase of about a million and a-half sterling may be fairly taken to represent the increased cost of stores which must necessarily be purchased to replenish and carry on a minimum rate of construction.

It is proposed then to distribute the construction for the year amongst 4,700 men in the following manner.

At Chatham the 'Rupert' is to be completed, and the 'Superb' and 'Temeraire' commenced; to these three iron-clads labour will be devoted to the extent of £87,000. In wooden vessels, the 'Raleigh' will be completed, four new sloops finished, and a new corvette commenced, at a cost for labour of £37,000. At Sheerness, two corvettes and a lighter which are now under construction, will cost £15,000 for labour. Portsmouth will be unusually active, with commencing an unknown iron-clad, if the designs are ever completed, advancing the 'Blonde' and completing the 'Thunderer.' These three vessels account for about £40,000; while in wooden vessels, the corvettes 'Boadicea' and 'Bacchante' and some gunboats are to be commenced at a cost for labour of £28,000. At Devonport the sum of £28,000 represents the charge for labour in completing four wooden vessels under construction. Lastly, at Pembroke, the 'Fury' is to be continued and a new 'Fury' to be commenced at a cost for labour of £54,000, in wooden vessels two sloops and a brig at a cost of £7,000; and a torpedo vessel for which the labour is charged at £4,000. The total cost of labour for this programme is as nearly as possible £300,000.

The following summary will, perhaps, shew more clearly how much it will cost for labour and stores to construct and complete the 12,757 tons which their programme represents, which it is proposed to carry out this year—

	For Labour.	For Stores.	Total.
	£	£	£
At Chatham, 3 iron-clads, 2 corvettes, 4 gun-boats . . .	124,000	960,000	1,085,000
„ Sheerness, 2 Corvettes, 1 lighter	15,000	77,000	92,000

	For Labour.	For Stores.	Total.
	£	£	£
„ Portsmouth, 3 iron-clads, 2 corvettes, 4 gun-boats .	68,000	281,000	349,000
„ Devonport, 3 corvettes, 1 tug .	28,000	107,000	135,000
„ Pembroke, 2 iron-clads, 1 tor- pedo boat, 2 sloops, 1 brig .	65,000	354,000	419,000
Total . . .	£300,000	1,780,000	2,080,000

Thus, out of a total expenditure upon the effective service of the Navy of about seven millions and a-half sterling, it is proposed to expend no less than two millions upon adding to the material strength of our fleet to the extent of constructing and completing eight iron-clads, nine corvettes and frigates, two sloops, four gun-boats, one torpedo boat, and three other vessels.

This suggestion has been made by pure accident but it raises a question which is constantly occurring, and is answered in a variety of ways. How much does the Navy cost? On the one side, we have apologists urging that for the money we spend we have a magnificent fleet, and that reduction is absurd; on the other, savage critics who fiercely maintain that naval expenditure is extravagant and ridiculously disproportionate to the results which are achieved. Occupying a sort of middle, but by no means neutral ground, are they who, like the present government, insist upon economical considerations being profoundly respected, but find it, upon experiment, difficult to suit their actions to their words, and more than difficult to attempt reductions with being plainly guilty of reckless cruelty to individuals or of positive injury to the service. What we want in this country, in regard to the cost of the services, is not denunciation or praise, or the extravagance of superficial criticism, but a little accurate knowledge. All the bawling in the world about the extravagant cost of the services is utterly useless from a really economical point of view, so long as the bawling is unaccompanied by an accurate knowledge of what items the expenditure upon the navy is made up. The most telling and popular criticism is of the general character that “for nine or ten millions sterling a year, the country keeps up a comparatively small Navy, and adds to it to a very limited extent,” or that we ought to keep up a navy three times the size for the money we spend, if we spent it properly, or that we ought to “knock off”—that is the correct expression—we ought to “knock off” a couple of millions, and keep up the Navy as well as we could upon the difference. Now let us analyse what all this means, and it will, we think, by a few very superficial remarks shew that to actually reduce the Estimates lower than they are at present, must necessarily involve a radical change in the service, and that, without such a radical change, which means neither more or less than a revolution in the Navy, the most

earnest-minded economist would find himself baffled and beaten at every turn.

The Navy costs ten millions sterling. Of this sum, to begin with a million and a-half is purely non-productive, being spent on the sacred items of half pay and pensions. The Navy benefits little by it, and is not affected in its strength or weakness by what is spent under these heads. The next item we will take, is that of ship-building. The programme we have referred to is for the ensuing year, and is calculated at a very moderate rate of progress, barely more than sufficient to keep up the waste in ships which is annually occurring. Yet this moderate programme costs two millions sterling:—so the estimates are disposed of to the extent of three millions and a-half, and only six millions and a-half sterling remains. Then the ships afloat, which in all hardly exceed 200 in number, have to be kept in repair, and ships in ordinary have to be repaired and refitted, or, at the least, kept in good condition; this costs another million, and reduces our available funds to five millions and a-half. But it must be admitted, for the sake of our argument, that not a pound of the four-and-a-half millions we have analysed, can be touched, except by a radical change—by abolishing half-pay and selling ships. Incidentally it may be mentioned that no efforts have been spared to do both as far as is practicable during the past four years. So we have five millions and a-half left. Out of this 60,000 seamen and marines have to be kept up, whose victuals and food alone come to three millions and a-half sterling. This sum cannot in any way be touched, except by reducing the number of men, and putting the Navy upon a completely new footing. We have, therefore, now only two millions sterling left. Well, says the zealous reformer who is irritated at details: urges that they only hinder reform and a move in favour of general sweeping measures, you have got a very fine Navy, cut off this two millions. To do this we must abolish the Admiralty to begin with; we must get rid of all our reserves which have been gathered together after years of trouble and expense, including as they do, the Coast-guard on shore, the Naval Reserve, and the Coast Volunteers; we must get rid of our dock-yards, or establishments for receiving stores and paying wages; all new buildings, including the great docks at Portsmouth and Chatham; all medicines and hospitals, and barracks for marines, and all the incidental expenses connected with the service. These come to two millions sterling; and if reduction can be made at all, it is out of this sum. It is not necessary to go into detail to shew how difficult it is to keep this sum within and not above what it is, and; as to cutting it down, let any one try. We may look at it any way we will, the sum of nine millions or ten millions represents a by no means extravagant expenditure upon the Navy; it may represent the cost of a Navy kept up at an absurdly high rate; but that is a matter of a totally

different complexion. It may be possible in some years to come to reduce Naval expenditure; but we maintain that this can only be done by great and organic changes. And if the question is asked, why have such changes not been introduced already, the answer is threefold: first, that the country would hardly consent to them for fear of demoralizing the service; secondly, that such changes would, as a matter of course, enlarge immediate outlay; and lastly, the statesman has not yet appeared who would be willing to gibbet himself upon such a doubtful policy, or to least expose himself to almost certain failure. The Estimates for the current year, as they have been explained by the First Lord, contain few matters of interest, but must be regarded financially as representing a minimum rate of expenditure.

MILITIA REFORM.

(Continued).

In the year 1867, when General Peel was Secretary of State for War, an Act was passed "to form a Reserve of Men in the Militia to join Her Majesty's Army in the event of War."* The men who volunteer from the Militia into this force enlist for a further period of five years during which time they are liable to be immediately drafted into the regular Army in case of war, but until then they serve in their regiments as ordinary Militia men, receiving an extra bounty of £1 per annum. The numbers are fixed by the Militia Reserve Act at "one-fourth part of the respective quotas of England, Scotland and Ireland for the time being fixed by law to be raised therein respectively." The said fourth part amounts to 30,000, but as the Militia quota can be increased from 120,000 to 180,000 in time of war, the quota of Militia men would also be increased by 15,000, making 45,000 in all.

This number is obtained as follows:—

	Present Peace Quota.	Extra Quota in time of War.	Total.
England and Wales	20,000	10,000	30,000
Scotland	2,500	3,750	6,250
Ireland	7,500	1,250	8,750
	<hr/>	<hr/>	<hr/>
Total . .	30,000	15,000	45,000

These men cannot be replaced in their regiments until they are called out on Army Service (Clause 5, Militia Reserve Act), and consequently all regiments are much below their proper strength, and must continue to be so until such an event occurs. The

* The 30th and 31st Vict., cap. III. ("The Militia Reserve Act, 1867.")

Militia are made to appear in the Army Estimates for this year as 129,000 strong, but on examination of the details it will be found that (probably through some error) the rank and file are estimated at 5,000 more than the full legal establishment; and also the whole of the Permanent Staff, Officers, and Non-commissioned Officers are included in this total. According to the latest returns issued,* there are 104,446 Militiamen, *including Militia Reserve*, showing a deficiency of 15,554; but if the Militia Reserve, who number 26,344, are deducted (as they ought to be in reckoning the strength of the Militia, as they would not be available when required), we have only practically 78,102 Militiamen, or 41,898 below the fixed Peace Establishment. The actual number of Militia Reserve men were stated by Mr. Cardwell, in the House of Commons, to amount at the present time to 31,522, which is 1,522 more than the legal establishment. According to Clause III of the Militia Reserve Act, no man can be enrolled, except "*with the consent of the Commanding Officers of their respective regiments*," but this authority to refuse to allow their men to enlist has never been put in force, probably because many officers do not know that they have the power to do so, and, secondly, they do not like to prevent their men from earning an extra pound on such easy terms. The first Regulations were dated 9th May, 1868, according to which the maximum age at which men were to be accepted was fixed at thirty; they were to measure 33 inches round the chest, and not to be under 5 feet 4 inches in height, and had to undergo a strict medical examination; although, if they were fit to serve in the Militia they might surely be considered fit for the Reserve. At first the Reserve was apparently not popular, and during the years 1868—70, comparatively few were obtained—possibly the regulations were somewhat stringent—so, in April, 1870, new orders were issued, directing that "*Any man of good character, and whose residence is known, will be accepted for the force*," and as every Militiaman is supposed and ought to comply with this description, it was, in reality, throwing it open to the whole force. These Regulations were accompanied by a Memorandum setting forth all the great advantages to be derived by men joining the force, which were ordered to be read to the men *not less than three times during the training*, it is only during the last few months, however, that the full number were obtained. This so-called *Militia Reserve*, although it costs £30,000 per annum, is no real addition to our strength; the men being simply transferred from one force to another; for at the present time were the Militia recruited up to their full strength of 120,000, we should in reality only have 90,000, the remaining 30,000 cannot be considered available, in consequence of their liability to be drafted into the regular Army. The greatest objection to be urged against the Militia Reserve Act

* Return No. 56, January, 1873 (House of Commons), giving the numbers on the 31st March, 1872.

is, that it does not allow the vacancies caused by the Reserve men to be immediately filled up; for a well-drilled Militiaman would be worth two recruits in time of war, and it is not till then that they can be replaced. To judge by past experience, this force was quite unnecessary, for the Militia have always shown so much readiness to serve in the regular Army, and to volunteer for foreign service during war, that it may be safely assumed, that if the men were enlisted for general service (on the understanding that they should not be called upon to leave the United Kingdom, except in the event of war), recruits would be obtained quite as freely, if not in greater numbers than now. This received ample proof during the Peninsula War, the Crimea, and the Indian Mutiny. In the year 1813, the Militia Service Act was passed, under which a number of Provisional battalions were formed to serve abroad. The want of space prevents any detailed account of the services of these battalions, or of the numbers who went to reinforce not only the Line, but also the Guards, where many of them continued to wear their Militia uniforms. The following brief summary will probably suffice to prove these facts:—

The 17th, or Royal Westmoreland regiment, formed part of the 3rd Provisional Battalion, commanded by Sir Watkyn Wynn, Bart., which landed at Bordeaux, and formed part of the 7th Division of the Duke of Wellington's Army, commanded by Sir Stapleton Cotton (afterwards Lord Combermere). Owing to contrary winds, they arrived just too late for the battle of Toulouse, where the ground had been marked out for the brigade to which they belonged. The Royal Pembroke Artillery (then a Rifle Corps) volunteered, in 1808, to be attached to the 43rd Regiment, to serve in Spain and Portugal; the Suffolk Militia (now Artillery) furnished a portion of the 2nd Provisional Battalion for service in the Peninsula, in addition to 1,119 men who went into the Line; the 35th, or Royal Bucks, furnished 400 officers, non-commissioned officers and men to the 4th King's Own Regiment—in 1808 they volunteered to serve in Spain, but their services were not then required; in the year 1813 they again volunteered, and their services on this occasion were accepted, the 1st Provisional Battalion being almost entirely composed of men from this regiment, the command being given to the Duke of Buckingham and Chandos, who embarked with the battalion the same year for Bordeaux, and served in France during the time the Allied armies were in possession of the country. The greater portion of the 46th, or Royal Denbigh Rifles, volunteered into the 3rd Provisional Battalion, and served with the Duke of Wellington's army in the South of France; a large number of the 28th, or Royal Elthorne (5th Middlesex) served in France during the year 1814; the 61st, or Royal Angelsea Light Infantry, volunteered in a body for foreign service in 1813; the 62nd, or 1st Derby, gave a number of officers and men to the 3rd Provisional Battalion, which served in France in

1814; the 95th, or Londonderry Regiment, volunteered in a body for foreign service (with the exception of one private), and it was notified to the Commanding Officer that their services would have been accepted had the war continued; the 115th, or Ayr and Wigtown, volunteered in a body to serve in Spain in 1808.

In addition to these Provisional Battalions, which consisted entirely of *bôna fide* Militiamen, an immense number of men volunteered into the regular army. Lord Castlereagh (then Minister for Foreign Affairs), in a speech delivered in the House of Commons on the 11th November, 1813, stated that from the year 1805 up to that time, a period of only eight years, the Militia had furnished 100,000 men to the Army (less 250) and some opinion may be formed of the services they then rendered from the following extract from his speech on that occasion.* “We could not have kept possession of Portugal or have sent forces to co-operate in the deliverance of the Peninsula at large, and to take up that menacing position on the frontiers of France which our Army now occupies. We should have been shut up within the bounds of our insular policy, and we could not have set that glorious example to other nations, or borne our share in the general exertions which have been made for the deliverance of Europe. Parliament ought always, therefore, to bear in recollection, that it is to the Militia we owe the character we at present enjoy in Military Europe, and that without the Militia we could not have shown that face which we have done in the Peninsula.” To take a more modern example of the readiness of the Militia to serve abroad, we need only refer to the Crimean War and Indian Mutiny, and it will then be found that from January, 1854, to August, 1859 (less than six years), they supplied 66,322 men to the Line and 5,220 to the Royal Marines, in all 71,542 men.† In addition to these, between May, 1854, and March, 1856, fifty regiments, representing a total of 40,936 men (exclusive of officers and non-commissioned officers) volunteered for foreign service; and from October, 1857, to August, 1858, eighteen regiments, representing a force of 12,714, likewise volunteered; ten of these regiments were sent to garrison the Mediterranean stations during the years 1855—56. The above few examples will probably be ample to convince most of our readers that the thousands now annually spent on the Militia Reserve, on the condition that they will serve abroad or at home with the regular Army, is only money thrown away.

The system of breaking up regiments to form Provisional Battalions, and drafting large numbers into the regular Army, has had a very bad effect on the character of the force, and tended in a great measure to make it comparatively unpopular, as the large number of officers required to complete the establishment

* Hansard's Parliamentary Debates. Vol. 27, pages 86, 87.

† Parliamentary Return, No. 380, 13 June, 1860, printed by order of the House of Commons.

will testify. The services of complete regiments only should be accepted, as were those which went to the Mediterranean station during the Crimea, for if the men were fit to serve in such large numbers in Line regiments, they were equally capable of taking their place in the field as regiments, for there cannot be much difference between a Line regiment containing a large number of Militiamen and a brigade or division with one or two Militia regiments, the proportion of regulars and Militiamen in either case being much the same. The first-named plan is the best that could be devised to destroy all esprit de corps, which has always been a great characteristic of the British Military Services, and is now more highly valued than ever, one of the principal objects in the new organization scheme being to encourage and foster this spirit. Again, although the Militia has really seen foreign service, yet as the battalions were in every case composed of detachments from two or three regiments, and none of them have therefore the credit of having taken any active part in any war, they are therefore looked upon entirely as an untried force, and, consequently, not so popular as they would otherwise have been. All the Great Powers now maintain such enormous armies, that in any future campaign it will be quite impossible for our comparatively small number of regular troops to act effectively without the active support of the Militia, and this should be done, not by drafting Militiamen or the Militia Reserve wholesale into the Army, and so reducing the former force that it would not even be capable to take up a place in the second line of defence or reserve, but by making them fit to be sent in regiments intact wherever their services are most required. Many improvements have doubtless been effected during the last few years, amongst the greatest of which may be reckoned the increased length of the Preliminary Drill for Recruits, the Schools of Instruction for Officers, and training the men in camp instead of having them billeted; the proposal to increase the length of service from five to six years is also a step in the right direction, but the Militia can never be thoroughly efficient whilst it is subjected to such a heavy drain from the Militia Reserve, and the men encouraged to join the Army in such large numbers without any appreciable return from them in return, when at the same time there is considerable difficulty in obtaining eligible recruits to replace them.*

The latest and most important reform that affects the Militia is the New Localization Scheme introduced in February last year, and is shortly to be carried out, by which, through the means of a number of Depot Centres, the regular-Army and Militia especially are sought to be closely associated. The value of such an organization cannot be too highly rated, and now that it appears to be

* In proof of this assertion it may be mentioned, that orders were issued to regiments more than a year ago to recruit up to their full strength, but few have succeeded in doing so.

almost an accomplished fact, it seems extraordinary that this principle of encouraging local association between certain districts and regiments, which was first recognized in 1782, when county titles were conferred on regiments to assist recruiting,* should have taken nearly a century to bring it into working order.

In such a comprehensive scheme as this, where so many interests have to be considered, it is not likely to give entire satisfaction to all parties interested, and this one has proved no exception to the rule; for during the few months the Report† has been issued it has been the cause of much grumbling, and numerous changes and revisions, and we may add improvements, have since been effected‡ in various details connected with the regular Army, but those portions relating to the Militia have in many cases, unfortunately, remained unaltered. Under the new organization, twenty-two new regiments and fifteen second battalions will be added to the Militia, being an increase of thirty-seven battalions, which will make the Militia Infantry 151 regiments strong. These will be raised as follows:—

ENGLAND.

<i>Sixteen New Regiments, viz.</i>	<i>Fifteen 2nd Battalions, viz. to</i>
2nd Berks	1st Lancashire.
2nd Cornwall	2nd „
2nd Dorset	3rd „
2nd Hants	4th „
2nd East Kent	5th „
2nd West Kent	6th „
2nd Leicester	7th „
2nd Northumberland	2nd Middlesex.
2nd Northampton & Rutland	3rd „
2nd Shropshire	4th „
4th Staffordshire	5th „
4th Surrey	1st West York Rifles.
2nd Sussex	3rd „ Light Infantry.
2nd Wilts	4th West York.
2nd East York	6th „
2nd North York.	

WALES.

<i>One New Regiment.</i>	<i>2nd Battalions.</i>
2nd Glamorgan	None.

SCOTLAND.

<i>Five New Regiments.</i>	<i>No 2nd Battalions.</i>
2nd Aberdeen.	
The Forfar.	
3rd Lanark.	
4th Lanark.	
The Lothians.	

* These might now be conferred on all other regiments which have none.

† Report of the Committee on the Organization of the various Land Forces of the Country, Feb. 22, 1872. [C 493].

‡ Final Report of the above Committee, dated Feb. 21, 1873. [C 712].

IRELAND.

No new regiments or 2nd battalions.

In order to avoid dispute, it will become necessary to number these new regiments in order of precedence, as was done in 1855, when a number of new regiments were then added; the second battalion, of course, have the same number of their first battalion. Out of the present list of 135 regiments there are six vacancies which must first be filled up, viz.—

The 14th, formerly the *Rutland*, now amalgamated with the Northampton;

The 24th, formerly the *Royal Carmarthen Fusiliers*, now an Artillery regiment;

The 72nd, formerly the *Kircudbright and Wigtown*, now the Dumfries and Ayr and Wigtown;

The 117th, formerly the *Argyle and Bute* (Infantry), now Artillery.

The 131st, formerly the *2nd Cornwall*, now amalgamated with the 1st Cornwall;

Finally, the 61st Anglesea Light Infantry, which it is proposed to convert into an Artillery regiment. The most impartial mode of selection is to take the regiments in the same order as their 1st battalions stand, with the exception of the 2nd Rutland and the 2nd Cornwall, which would take the 14th and 131st places respectively, by virtue of their old county regiments having held those positions, as already shown—the regiments would thus stand in the following order:—

<i>Old Numbers vacant.</i>	<i>Number of 1st Battalion.</i>
14—2nd Northampton & Rutland.	
24—2nd Berks	7
61—2nd East York	12
72—2nd North York	22
117—2nd Leicester	26
131—2nd Cornwall.	
Then follow the new numbers, viz.—	
136—2nd Northumberland	27
137—2nd Wilts	33
138—2nd West Kent	37
139—2nd Dorset	42
140—2nd Glamorgan	44
141—2nd East Kent	49
142—2nd Sussex	52
143—2nd Shropshire	54
144—4th Staffordshire	73
145—3rd Lanark	78
146—4th Lanark	79
147—2nd Aberdeen	89
148—4th Surrey	118
149—2nd Hants	122
150—The Lothians	126
151—Forfar.	

The Committee appointed to carry out the details involved in the new organization was composed of four officers of the regular army and one civilian, and although the scheme affects the Militia as much, if not more, than any other force, it does not appear to have been thought necessary to include any officer of that force to represent them. It is, therefore, not surprising that in most cases it seems as if the only consideration so far as recruiting, was how to keep the Line Battalions effective at the expense of the Militia, thus making the latter a mere recruiting or *Depôt Battalion*. For example, paragraph 31 states that during war, recruits will be enlisted for general service in either the Line or Militia Battalion of the district; it is, therefore, almost certain that in such an event the Militia could not be able to get any recruits whatever, or only of a very inferior character, as they would all be required for the Line; it is further stated that on a Line Battalion being ordered on active service they would complete their establishment from the Militia Reserve, and *Volunteers from the Militia Battalion*, the latter battalion to be embodied (paragraph 35). It is also added that the *Depôt Centre* should be at once recruited up to a full battalion, and the Militia Battalions to war strength. In the first place, would it be possible to obtain such a large number of recruits in comparatively so short a time? Secondly, supposing that a sufficient number of desirable recruits were obtained, what would then be the value of the battalions composed, as they would be of such a large number of untrained men; the probability is, that by the time they were fit for work, the war would have been lost and won. It is bad policy to wait for a war to commence before we begin to recruit, and then try and make up for lost time by offering extravagant bounties. No other countries do so. The number of men we require to place all regiments both of the regular army and Militia on a war-footing should be obtained and well trained beforehand at our leisure during peace. If Militiamen were enlisted for ten years, the first six he should attend the annual training, and during the remaining four he should only be liable to be called up again to serve with his regiment in case of war; in this way we should have a real *Militia Reserve*.

The old system of keeping up the regular army on a war-footing, and at the same time reducing the Militia to a nominal force by drafting the men from the latter into the former, is still kept in view throughout this scheme. The *modus operandi* is described as follows, in paragraphs 36 and 37 :—"The reinforcements for the army in the field would consist of the *best drilled soldiers of the Militia Battalions*,' 'these' being obtained from those battalions by volunteering, or *transfers*, as the case might be. For the purpose of this supply, the district represents the grand reservoir; the *depôt* the expense reservoir; the *2nd Militia Battalions* represent the grand cistern, from which two channels uniting would

pour a stream of reinforcements into the cistern of the field battalion." It will be observed that the Line regiments depend, not on their own Depôt Battalion (and the Army Reserve), which would then according to the scheme consist of eight companies, and should therefore be able to supply deficiencies quite as well as the Militia Battalion of the same strength, but on the latter battalion almost entirely.

After reading these extracts it is difficult to reconcile the statement contained in paragraph 42, with such a plan.—"It is by no means intended that Militia Battalions, any more than Line Battalions, serving at home, are to be regarded merely as recruiting agents for battalions serving abroad. Militia Battalions, like Line Battalions, would be liable to be called up into the line of battle, in case of an invasion of this country." One thing is very clear, viz., after having lost so many men by volunteering or transfer into the line, they would be totally unfit either to relieve line regiments in colonies, or take their place in line of battle as proposed. The report goes on to say (paragraph 45) that, "It is not unreasonable to expect that the estimate connection, which it is one great object of the new proposed system to create between the Line and Militia Battalions of a brigade district, will induce the Commanding Officers of Militia to forward the interests of their connected Line Battalions by encouraging, *in place of heretofore opposing the enlistment of their men in regiments of the Regular Army.* Surely it is hardly fair to make such an assertion, when as already shown, the Militia furnished upwards of *seventy thousand* men during the Crimean War and Indian Mutiny alone; and since then some three or four thousand men are obtained annually, to say nothing of thirty thousand Militia Reserve men. Is it not very natural that Militia Officers should experience, to say the least, some regret at seeing their regiments broken up in this manner by such a one-sided arrangement, by which the Regular Army obtains both officers and men without assisting in any way to fill up the gaps thus caused. It has been urged, says the Report, "that Militia regiments would be deteriorated by the transfer of their best men to the Regular Army in the field. But the question for consideration is, not what is best for the efficiency of this or that service taken alone, but what is best for the military interests of the nation." This sentiment is most true, and one that all should heartily endorse; but it is at least questionable whether this mode is the best for the military interests of the nation, and therefore those who oppose it should be pardoned for objecting to it.

It is impossible that officers and non-commissioned officers, and even the men themselves, can take much pride in the appearance of their regiments, or have any *esprit de corps* when they know that at the very time their services would be most urgently required, when they would have an opportunity of showing that

they had not worked in vain to make fairly drilled soldiers of them ; their companies and regiments will suddenly dwindle down to a mere skeleton of their former strength and have to set to work over again to fill their ranks.

Under such circumstances it is not surprising if the force is unpopular. The following opinion expressed by Mr. Cardwell on the Militia Reserve will be read with satisfaction by many. "He (Mr. Cardwell) admitted that he had always been sceptical about the Militia Reserve, but, after taking the best advice he could obtain, he thought it would be very desirable when they had no Army Reserve that they should have a Militia Reserve.*"

It has already been pointed out that by increasing the one force and diminishing the other in equal proportion is no real acquisition of strength, and that judging by past experience, it was a great mistake to revive the practice even in another form, as there has never been any lack of men to volunteer when wanted. The force, however, having been established cannot be got rid of until five years has elapsed after the men cease to be enlisted ; for as the men are enlisted for that period under the condition of receiving £1 annually, it is useless for Members of Parliament to vote against the sum allotted for their bounty,† as by passing the Act, and voting the amount required the first year, they are bound to continue doing so until the contract is completed.‡ By the year 1876 men will be transferred in considerable numbers from the regular Army to the Army Reserve, and then perhaps (according to the speech of the Secretary of State for War, above quoted,) we may look for the abolition of the Militia Reserve. As there will probably be a considerable number of men interchanged between the several battalions of a brigade in time of war (according to the new Organization Scheme) especially of Militia Reserve men, and Volunteers from the Militia, it is of importance that such changes should be effected with as little trouble and delay as possible. It would be very advantageous therefore for this reason if the Line and Militia battalion of a brigade were equipped as much alike as possible. Take for example the eight battalions of Middlesex Militia which are attached to the Rifle Brigade and 60th Rifles ; only one is a rifle battalion and four of the others have yet to be raised, so it would be comparatively easy to equip the remaining three in the same manner. The same remark applies equally to all other brigades in which the equipment varies, such as in Highland, Fusilier, and Rifle Regiments, these are not very numerous, and the cost of the alteration would be very small.

Having now attempted to dispose of some of the most import-

* The 'Times,' March 1st. On Committee of Supply on the Army Estimates, page 7.

† Ibid

‡ The cost for five years is upwards of £150,000.

ant changes which might be carried out with advantage—at least from a Militiaman's point of view—we will bring the subject to a close by expressing a hope that the reforms already proposed by the New Organization Committee may be speedily put into execution.

THE ARMY ESTIMATES.

The compiling, arranging, and calculating the probable cost of the Army has now seemingly become one of the Fine Arts, for as much mystery is made of the subject, as if the power to produce the figures was an occult science, and only known to about as many persons as those who are credited with heads able to translate the Assyrian tablets. That there is something secret belonging to the estimates is evident from the fact, that although nearly every year shows a large *decrease* in expenditure, a real *increase* of outlay results. For instance, the net cost of the army in 1869—70, was £12,444,765, and although it decreased £1,136,900 in 1870—71, and with one exception (1871—72) gone on decreasing since, the net amounts estimated to be required for the ensuing year is £13,231,400, or £786,635 more than it was four years ago. We take 1869—70 to compare the present estimates with, as the total numerical force in both periods nearly agree, while in the former amount was included the sum of £472,664, net disbursements on account of the Abyssinian Expedition during the year 1869—70, which will stand as a set-off to the £450,000 Mr. Cardwell claims to have saved by additional expenses, “on account of the fluctuations in the prices of fuel, provisions, and clothing,” as well as “the additional costs which may be fairly charged upon the vote for works and buildings.” The extraordinary display of reasoning here shown by the War Minister is really wonderful, for never before has he or any one else in his position attempted to prove, that £450,000 of a probable deficit of one year, was to be regarded as a surplus of the preceding year, and we must look in the burlesque of the “Happy Land” for a similar style of reasoning, when, in reply to the question of what “Twice two is,” some one answers, “Either three or five, according to circumstances.”

But Mr. Cardwell's method of reasoning went much further than showing a surplus that was made up partly from deficits. He claimed to have saved “upon the estimates of last year £408,100,” in addition “to the saving on those of the previous year of £1,027,000.” Let us see how he gets those figures. The estimates for 1872—73 were given at £14,824,500, and as the present ones are only £14,416,400, the difference between those two amounts is £408,000—the *net decrease* claimed. Then, as the sum which was

thought to be necessary for 1871—72 was £15,851,700, and as that was a million and odd pounds more than the amount named last year, Parliament and the public are blandly informed on the 24th of February last, that there has been a clear saving in the army expenditure of the last two years of £1,435,500. Now what are the facts? As the accounts have been made up for the year 1871—72, and nearly so for the year 1872—73, there is not much difficulty in ascertaining how we stand with respect to former expenditure. In the former year the army cost the country £14,077,503, less £21,099 due to expenses connected with the Abyssinian Expedition, or £14,056,404. For the financial year just ended, the expenditure is, at the highest estimate, £13,305,528, between which amount and the cost of the army for the previous year, the difference is only £750,876 of a decrease, and not £1,027,200, as alleged by Mr. Cardwell. Then if we deduct the calculated net expenditure for 1873—74, from that of 1872—73, we find the difference is only £74,128, not £408,100; and the saving on the two years is in reality but £825,000, instead of the two millions decrease claimed.

It will be urged, that as the Estimates for any year must to a considerable extent be conjectural, it is unfair to contrast suppositious amounts with real ones, but the fallacy of such an argument can be detected at once. In all calculations of expenditure it is imperative—that is to say, if correctness is aimed at—that the foundation these calculations are based upon should be also correct, and fortunately when the total strength of the army is known, its estimated cost should be reckoned upon pretty closely. Now, if a false estimate is taken as a basis, it will be nearly an impossibility for a true statement to be arrived at, and we consider, that when it was so easy to have given accurate details of expenditure, that it was little short of deliberate dissimulation in the army authorities to represent a decrease several hundred thousand pounds more than it really was.

Another matter for censure, is the method lately practised in the compilation of the Estimates, of transferring the sum which has figured under a certain vote this year, to quite another vote next year, while probably it had flourished under altogether different headings in past years. Probably this may all be due to exertions to get the Estimates into “apple-pie order,” but the very frequency of the changes will lead persons to imagine that it is not done to make the different charges more easily understood, but for the purpose of confusing and perplexing inquirers. Surely it is not too much to expect that the expenses of each department should be found under the title which represents it; but so far from this being the rule it is the exception. For instance, the £1,447,800 no more represents all the cost of the “Auxiliary and Reserve Forces,” than does £27,000 the computed sum the “Administration of Military Law” will cost us. In the charges against the

Militia alone, no less than £124,000 appears in other votes; and although the pay and expenses connected with military prisons are expected to be but £10,191, a reference to other pages informs, that the total cost will be much nearer £100,000 than the small sum named.

Under the circumstances we have mentioned, the interest which a perusal of the Estimates would give is greatly lessened by the knowledge, that although we may be stating certain amounts and numbers, these are really only suppositious sums and symbols. Still we shall endeavour to do our duty to the reader as well as it is possible, under the circumstances, for that duty to be performed.

The army is to be reduced again this year by 4,681, the total strength being calculated at 128,968, as against 133,649 last year. The decrease will not affect the Artillery, Cavalry, Engineers, or Army Service Corps. The Foot Guards have been reduced in strength, as has also 70 battalions of infantry at home. But we should look farther than the mere saving of a few thousands per annum, when the efficiency of the army, and the proper protection of the country and our colonies are in the opposite scale. The reduction is simply in the number of privates, the other ranks remain the same, and as, if hostilities broke out, or another mutiny happened among the native troops in India, we should not have an efficient army to take the field abroad or to protect our shores at home. We keep up an administrative staff, large enough for double the force we have either here or in India, and yet, while claiming to having made the service more effective than it ever was before, there is in reality comparatively no army to make efficient. In India our 62,000 men are scattered over the country in small detachments doing police duty, and at home, despite our railways and other rapid modes of communication, the troops are now as much apart as they were during the last century. Mr. Cardwell has certainly promised us a good deal, but then his are only promises that are not likely to be performed. We shall doubtless have the depots and their staffs duly located and paid for, but we fear we are yet far off from the degree of perfection held out to us as about to happen. What is proposed is, to have 50 infantry districts in England, 8 in Scotland, and 8 in Ireland, while the artillery districts in the respective countries will be eight, two and two. The cavalry in Great Britain will be divided into two districts: viz., a northern and a southern, each to be under an inspecting officer. The infantry sub-districts are intended to consist of two Line battalions, two Militia battalions, a Brigade depot, a Volunteer corps, and the infantry of the Army Reserve. Of the two Line regiments, one will be at home, the other abroad, the former being a depot or source of supply to the latter. But unless one corps remains always abroad, undesirable inconveniences and complications must arise, for at the annual relief season, either the relieving regiments must be drawn away out of England, and thus

leave the country partly unprotected for three months, or the regiments whose turn it is to come home must arrive here before their successors start; a kind of arrangement that will place India in a similar and more dangerously exposed position. If one regiment was to be kept permanently abroad, we should still have a continuous exchange of officers and men going on; a mode of action that would undermine the discipline and organisation of the best corps in the service. The fact is, as we have declared all along, that no description of soldier's service, shorter than a term exceeding the period a regiment has to stay in India, will be found suitable for the British Army. We may theorise, patch, and cobble our estimates, and talk about volunteering to corps abroad, and the great benefits to be eventually secured by the formation of proper "reserves" at home, but we have already seen what such talk and theoretical fancies come to, and in a year or two, when the first batches of six years' men begin to claim their discharge, there will be extravagant offers of large bounties to instigate other men to enlist, and of still larger bonuses to induce the six years' service soldiers to remain.

Mr. Cardwell propounds a theory of exchange that is truly startling. The sub-lieutenants, he said, and all in rank under them, "who may be enlisted for the Line portion of any such brigade shall, for reliefs, for all duties at home and abroad, and for every military purpose whatsoever, and *in whatever ranks they may respectively hold*, be interchangeable between the several battalions of their brigade, and shall be liable to serve in either of the Line battalions thereof, or during wars or times of emergency in either of the Militia battalions thereof, indifferently, without regard to the particular battalion to which they may have been first posted." Now if the above means anything, it gives power to a depot or brigade commandant by judicious management to place all the best disciplined officers, and the smartest and best conducted men into the one battalion he favours most. That battalion will be naturally the one he commands at home, and so the unfortunate corps abroad will not only have to contend against a hot climate and other disagreeables, but have drafted into its ranks all the incapable officers, and *mauvais-sujets* of the lower ranks which are useless or troublesome at home. A clever drill-serjeant need never under such circumstances expect to see foreign service at all, for if he would be useful abroad, he was equally so at home, and this remark applies to all others either of commissioned or non-commissioned rank. It is unnecessary to contemplate such a foolish system further.

Much more sensible is the idea of placing the Yeomanry under efficient inspectors, although we do not quite agree with drilling them as infantry, believing that any dovetailing of the two services such as converting dragoons into foot soldiers, or *vice versa*, must result in rank failure. Some other time we will give fully our

reasons for objecting to such an amalgamation, here they would only be out of place.

The greatest, and perhaps only improvements connected with the *depôt-system*, will be that which consolidates each sub-district into a little army of itself, having all its stores and other war material ready at hand. To our idea everything should be so arranged that no longer warning even for preparing to march for the Autumn Manœuvres would be necessary than forty-eight hours, by which time the different brigades to be employed should be ready for the road, provisions, camp equipage, &c., all complete.

In Vote I. the General Staff expenses there is a decrease this year of £165,436, the saving having been effected principally in Regimental Pay, which is £145,247 less than it was last year. In the Training of Recruits £20,000 has been saved, which with £11,000 from "Expenses of Discharged Soldiers," and £8,774 from "Regimental Allowances," more than accounts for the decrease made. The price of horses having increased lately, an augmentation in this subhead was to be expected, consequently there appears £88,000 instead of £78,000, mostly due however to an increase of £7,000 to provide temporary transport during the Military Manœuvres.

Vote II. (Divine Service) is £1,559 more than in the previous estimates, the total amount being £46,840. Of this amount 78 chaplains receive £22,212, which is an average of nearly £300 each per annum, and as promotion, that is increased pay, in the Church Militant, does not go by favour but by length of service, curates upon a hundred a year must regard army-chaplainships as something worth aspiring to. There is also paid to clergymen of different denominations who preach to soldiers £20,565, one-fourth of which however goes to colonial preachers, and the increase of this vote is mainly owing to the charges paid to "Officiating Clergymen." "The Administration of Martial Law," Vote III., is estimated to cost £27,000. Having previously called attention to the misleading nature of the figures here shown, we will not again enter into the matter, beyond expressing the hope that future estimates will show exactly what this and every other department really costs the country.

The expense of the Medical Establishment and Services, Vote IV., is to be £247,367, which is a slight decrease on the previous estimates. Medicines are calculated to cost £1,000 less, from which we imagine that the causes which have effected everything else from meat and coals to local taxes and lucifer matches, have not had a corresponding influence upon drugs. There are in all 596 surgeons of different grades, who divide amongst them £201,515, which averages about £340 apiece. The pay of the Army Hospital Corps, which properly ought to figure under this heading, appears in Regimental Pay. It amounts to £40,481. Vote V. gives us the Militia expenses, in which appears a net decrease of

£147,900, but as the lodging money, &c., £113,000, the forage allowance to officers, £10,000, and "Divine Service," £1,000, appear in other votes, the saving is practically but £23,900, of which £11,000 is owing to a reduction of strength in consequence of the staff being absorbed in the new Brigade Depôts, and £12,500 in "Bounty and Expenses of Enrolment." In Vote VI. (Yeoman Cavalry), a small decrease of £812 appears, but as we can see no charges for pay allowances, &c., to the two new inspectors of this branch of our auxiliary forces we imagine that properly an increase instead of a decrease should have appeared in this vote. Here, again, £1,000 for "Forage Allowance for Officers' Horses" is transferred to Vote X. The Volunteers (Vote VII.) are to cost £130,320, which is £42,880 less than last year, and as we are told this is due to the discharge of a number of inefficient, we are only too thankful to record the saving in money, that combines with it the riddance of men who were not only valueless themselves, but a source of trouble and annoyance to others. In this vote again £24,950 which should appear here has been transferred to other votes. The expenses of the Army Reserve (Vote VIII.) is to be £123,200, a reduction of £1,300, in consequence of £1,000 less being required to pay pensioners in Australia, and £300 to the Staff at home.

Vote IX. (Control Establishment) requires £389,007, being £9,258 of an increase over last year. Of this amount 3 controllers, 14 deputy-controllers, and 40 assistant-controllers receive £31,662, being an average of over £555 each per annum. Altogether £132,414 is drawn by 495 officers. As the Army Service Corps is subordinate to the Control Establishments, the regimental pay of that body, £97,895 should be added to the £389,000 named above; and when we look back to the days when Control was not, comparing the cost then with now, and past efficiency with the present incompetency that failed when trying to feed and forage a force of 30,000, we pause in complete bewilderment. Control in theory was not to cost less, but to do more, while in practice it has cost about double, while nothing has been done half so well. The most remarkable feature connected with it is, that the expenses are increasing instead of diminishing, for instance, £374,887 was sufficient for the establishment in 1870—71, while the Army Service Corps did not cost so much yearly then by £16,000 as now. We now come to Vote X. (Provisions, Forage, Fuel, Transports, &c.), and as a number of other votes have been made to show a decrease by simply transferring a portion of their items to this vote; there is, as might be expected, a considerable increase, one that amounts to £196,391. The cost of provisions is here calculated to be £600,897 more than will be recovered from stoppages from the pay of officers and men for returns supplied to them. The allowance to wives and families of soldiers when separated from their husbands is £2,500, making in all an increase of

£41,566 on this subhead. Forage is about £13,000 more; fuel and light, £34,484, "rents and taxes," £7,187, and lodging allowance, £119,342. The principal saving is effected in "transport at home," this is £24,695 less than in 1872—73, which has been effected by showing here £20,695 expended less for "hire of horses," and £4,000 in the carriage of stores and clothing. As usual the saving has been none, the alteration being managed by transferring certain sums to other votes. Under this sub-heading likewise appears travelling expenses, &c., connected with every department amounting to £84,800, that should all have figured under other votes, and until the authorities adopt the system of putting every expense connected with each department under its proper heading the Army Estimates will remain what they are, a mockery and a delusion.

The expenses of clothing establishments and supplies are put down at £743,078, which is a reduction of £8,591 from what it was last year. A great mistake, however, is made by not showing the value of stores in hand. Pimlico may be full of made-up clothing and boots and shoes, the expense of which has appeared in former estimates, or it may not have even the "gaiter-button" that Marshal Lebœuf declared the French Army were not deficient of; but unless we have some details of the facts, however are we to know? There is certainly a column headed "Deduct in Store Available;" but that now is only a blank, although in years not so long gone items to a large amount appeared in it. Surely Mr. Cardwell has not, in order to lessen expenditure, permitted the reserve stores to be used until none are left? From the details furnished, we find that the clothing of a private in the Life-Guards costs double that of a private of Cavalry, a proportion the Foot-Guard private possesses over his brother in the Regulars. Why this should be in the latter case, it is difficult to imagine, as with the exception of the forage-cap the Foot-Guards do not differ much from the Fusilier Corps that are also decorated with bearskin hats. We certainly believe that a great saving could be effected in the supply of clothing, while the men would not lose but gain in appearance if neatness was only permitted to take the place now filled by a useless display of tinsel and braid.

One million and seventy thousand pounds represents the money required for warlike and other stores (Vote XII), in which there also appears a declared decrease of £125,834, but as £127,349 less is to be paid in wages, despite Mr. Cardwell's assertion to the contrary, we cannot accept the amount stated as in reality a saving to the public. Then gunpowder and gun cotton are to cost less by £30,700; in torpedo cases a saving of £6,540 is to be made, in saltpetre £20,000, in gun-carriages £30,000, in camp equipage £9,600, in accoutrements £7,500, and in saddlery £13,000, making with some smaller items a total of £550,575. The increase comes to £124,741, timber being £11,605 extra, fuel £32,103, metals

£38,929, small arms £70,000, and lesser amounts £2,104; less £30,000 value of stores issued on repayment. We have here again £88,338 provided for in other votes that ought to come under this heading, but which appear in Votes IX and XIII.

Vote XIII.—Building and Repairs is calculated to cost £778,048, an alleged decrease of £77,030, but as no expenses are to be incurred in connection with marine torpedoes this year—which is a doubtful economy representing £10,000, while £66,230 are knocked off the expenses of barracks and fortifications, and £4,200 in grants for aid of works, we fail to understand Mr. Cardwell's meaning when he claims to being obliged to estimate 50,000*l.* additional for this very purpose. Mr. Cardwell's words, after having stated about the 400,000*l.* extra—he was compelled to include the estimates—were “That does not include the additional cost which may fairly be charged upon the vote for works and buildings, which is not quite so easy to estimate, but the estimate given to me is 50,000*l.*” How is the decrease on the one hand and the increase by Mr. Cardwell's statement on the other to be reconciled, when for the very purpose he mentioned it is expected 66,230*l.* less will be required this year than last? When we come to closely examine the expenses connected with “Buildings and Repairs,” it is strange to find such a difference in the compilation between the years 1872-73 and 1873-74. In the first named the stations appear in alphabetical order, Aldershot, &c., but in the other they appear to have been drawn out of a hat, as at a Derby Sweep, Sandhurst coming first, then Brighton, and so on anyhow. This cannot have been done surely to simplify matters, or to make comparisons between one estimate and another more easy; if so, it is only the official mind that can comprehend the mystery.

Vote XIV brings us to the expenses connected with Military Education, which is estimated to cost £133,930, being less by £5,468 than last year. Of this, £4,070 comes under the subhead of “Office of the Director-General;” the greater part of which sum, however, goes to pay the examiners. We have often wondered who gets the money (the half-crowns and five shillings) that candidates for appointments in the Civil Service have to pay? Does the money go to Government, or, like the money paid for Patents, go to enrich private individuals? We find here, however, that the examiners are paid by the State, consequently, we presume that candidates for commissions are not mulct of any sums previous to examination. The Military Academy at Woolwich costs 29,095*l.*; Sandhurst, 16,980*l.*; the Staff College, 8,091*l.*; Garrison Instructors, 3,823*l.*; —a by no means lavish expenditure for the purpose—Regimental and Garrison Schools and Labourers, 40,440*l.*; the Normal and Hibernian Schools, 20,676*l.*; Artillery Officers' instruction, 2,857*l.*; and the Military Medical School, 7,889*l.* In looking over the yearly payments made to schoolmasters and schoolmistresses, we are much struck at the extraordinary small salaries the latter receive. Of

seventeen first-class Schoolmistresses only two receive 50*l.* yearly—the pay of the remainder being but 44*l.* per annum. The forty-seven composing the second-class get but 36*l.*, and the ninety-seven third-class 30*l.* each per annum. Now, when we reflect that Schoolmistresses under the different School Boards throughout the country receive from 70*l.* to 80*l.* per annum, the small pay given to Army female teachers who have to accompany their regiments to all parts of the empire is very remarkable. First-class Schoolmasters get 147*l.* yearly, nearly three times as much as Schoolmistresses of the same class receive—surely the distinction between is far too great. Turning to the expenses connected with Regimental Libraries, Reading and Recreation Rooms, it is equally surprising to find that the sum of 4,187*l.* per annum is considered sufficient to supply the whole Army at home with books, newspapers and games, as well as games on board ship for troops going to the colonies. It seems incredible, yet the fact is too plain, that we pay half as much again at a few stations in expenses connected with the “Contagious Diseases Act” than we do for libraries, reading and recreation rooms throughout the service.

Vote XV. is for the Miscellaneous Services, and amounts to 29,341*l.*, the highest item being 6,385*l.*, for the “Contagious Diseases Act” just referred to. Only 1,500*l.*, instead of the 15,000*l.* of last year, is to be drawn to pay “Inventors,” and as Captain Moncrieff receives 1,000*l.*, Government plainly intimates to all other clever men that they had better take their inventions elsewhere, as here there are no funds to pay them with. Among these miscellaneous services appears a charge of 1,441*l.*, in connection with the “Lower Armouries,” and why this should not have come under its proper heading in Vote XVII, can only be accounted for on the supposition that these estimates are not meant to be understood by even the War Office officials themselves.

Vote XVI gives us the details of War Office Expenditure, which we ascertain is kept up at a cost of 200,473*l.*, this being an increase of 3,698*l.*; so we find that while the rank and file are to have increased pay, the very upper crust of the Army has not been forgotten—the Commander-in-Chief’s department netting 1,584*l.*, and that of the Financial Secretary, 1,860*l.* extra.

Vote XVII. Reward for distinguished services shows an increase of 8,105*l.*, being estimated at 35,385*l.* this year, and at 27,280*l.* last year. The increase, which we should have been only too glad to hail, is but apparent, not real, the 8,000*l.* for gratuities to old soldiers for long service and good conduct having been transferred from Vote I. to Vote XVII. Some of our contemporaries have been crediting the government for their extreme liberality in granting the 8,000*l.*, but if they had looked closer into the matter, they would have discovered that it was simply a case of *as you were*, as far as this Vote is concerned. Last year we called attention to the fact, of there being a surplus of 160*l.* of the 5,000*l.* voted for

yearly rewards to sergeants, referring at the same time to the still larger sums that had been allowed to fall into the treasury during previous years; we are therefore glad to find that our remarks have been noticed, there being only 25*l.* undisposed of this year. At the same time we consider there ought to be no surplus, for it would be as easy, when a death occurred among the sergeants thus rewarded, to fill it up from the roster, in the same way as is done when a vacancy occurs among the officers drawing extra pay for distinguished services. In Vote XVIII. we have the pay of general officers 80,000*l.*, being a net increase of 8,100*l.* The next Vote (XIX.) has an increase of 1,408*l.* in the full and half-pay of retired officers, but as there is in reality a decrease of 27,500*l.* in the payments, the apparent increase being caused by there having been paid the National Debt Commissioners the sum of 28,908*l.* more this year than last, the increase is not one to rejoice over. The pensions paid to officers' widows (Vote XX.), shows this year a decrease of 6,828*l.*; as does also Vote XXI.—pensions for wounds—although not to so large an amount, the saving in this being only 2,798*l.* The Vote (XXII.) that defrays the expenses of Chelsea and Kilmainham Hospitals, is estimated to cost this year 36,648*l.*, an increase of 2,701*l.* Of the total amount Chelsea requires 29,731*l.*, and Kilmainham 6,917*l.* From this we find that the maintenance of each pensioner in Chelsea costs over 55*l.* per annum. The number of pensioners in Kilmainham Hospital not being given, we are unable to say what they cost the State each, but probably it is not much less than at Chelsea.

We do not wish to advocate the breaking up of Chelsea Hospital, but we are of opinion that if the present building and grounds were sold, money enough would be got to buy in the country land enough on which three hundred cottages could be built, each capable of holding two or more pensioners, where with, perhaps, a family and a piece of ground to till, our old soldiers would be far more healthy and happier than they are at present. One peep at their little dens in the present building where each looks more like an anchorite in a cell, than one who had travelled over three-fourths of the known globe and mixed in all sorts of good company, must tell how unsuitable and wearying this daily life is,—a life from which their only escape is among the drinking houses that surround the hospital gates. There are plenty of waste crown lands within twenty miles of London; erect cottages for them there; give each his piece of garden ground; let him feel as much freedom and see as little discipline as possible, and we should not only be doing good to the men themselves, but a service to the State of which they form a part.

The out-pensions.—(Vote XXIII) shews a decrease of 42,775*l.*, there being required this year 1,214,519*l.*, as against 1,257,324*l.* last year. The next Vote (XXIV) is that of the "Superannuation Allowances," which amount to 172,124*l.*, an increase of 4,504*l.* An

examination of this Estimate puts us in a state of perplexity, for in giving these allowances no regular scale seems to have been followed either of years served or amount of salary at the time of retirement. For instance, a War Office messenger, after twenty years' service, during which period he had been drawing 40*l.* 8*s.* 7*d.* per annum, is superannuated on an allowance of 3*l.* 15*s.* 2*d.*, or just *twopence-halfpenny per diem*. He is certainly seventy-four years of age, and cannot be expected to be a large eater, still we doubt if this sum will even purchase enough of the proverbial "bread and cheese," to keep him alive till next quarter day. Again, one third-class clerk drawing a salary of 200*l.* per annum, after eleven years' service, is to receive a pension of 53*l.* 6*s.* 8*d.*, while another third-class clerk, who has been in the receipt of 5*l.* additional yearly to the first, is only to have 4*l.* 8*s.* 4*d.* for thirteen years' service. Here, evidently the extra two years' service and the 5*l.* additional salary at the time of retirement were disadvantages, or how comes it that the one who had so much more in his favour than the other is pensioned off upon nearly nine pounds less a year? Vote XXV requires 20 246*l.* to pay the pensions, &c. of retired officers belonging to the Militia, Yeomanry, and Volunteer Corps, and when we state that some 16,000*l.* pays over 400 officers of different grades, no one will think of accusing the government of over-liberality in these cases.

This concludes the statement of sums required for the various purposes connected with the service, and while we have made few comments upon the different charges, we have spoken out against the system of attempting to hide from the public what each separate department really costs to keep up. We are entirely at a loss to account for such a method being put in practice, for really no good to the service nor to the public can result, but on the contrary much injury. We most willingly admit, that under Mr. Cardwell's rule, the British soldier has gained immensely pecuniarily and otherwise, and the last addition to his pay will doubtless be properly appreciated. The scheme of mulcting the pay from soldiers who are in the hospitals from causes of their own bringing on is also a wise one, and will be productive of much good, as in every corps there is a certain class of men who spend three-fourths of their service in hospitals, only coming out occasionally to spend their savings, and then back again to accumulate more. Mr. Cardwell's plan will be a deathblow to the Hospital-birds. With respect to procuring soldiers, we fear that even the increase of pay will not prove effectual, the only thing that will make the army popular, and put a stop to desertion, is, a revision of the Military Code, but we dare not hope for such a step in advance while the Army Estimates remain in the present state, so we can only hope when they get amended, perhaps a revision of the Articles of War may follow. Certainly as improbable things have happened.

FOREIGN SUMMARY.

Paris, March 24.

Just now, and no wonder, the liberation of our soil from the contamination of the armed host of the Prussians is our one great subject of prospective rejoicing; dashed, however, it must be confessed, by the question, "And what is to come next?" Our plunderers departed, six months hence, with treasure such as their race never dreamt of before, and with the idea fully planted in the minds of their Royal and Princely Leaders, what a very easy and profitable a thing it would be to pluck another quarrel, how long are we likely to be left to adjust our domestic affairs? Though it has been far from their intention, the presence of the German hordes has had the effect of keeping our different parties from flying at each other's throats; but does anybody suppose that this unquestionably beneficial effect will be placed to their account by any party? Most assuredly not. The restraint that they have imposed has only made the hatred to them sink more deeply into hearts; and if the interval between 1806 and 1870 could not efface Jena from their memories, they, and the world in general, may rest assured that 1870 will never be forgotten until it has been avenged in a fashion that will make the "Franco-Prussian War" of our day a very tame affair comparatively speaking, all its horrors being enhanced a thousand fold, and, not the humbling and robbing, but the annihilation of one of the parties, the end kept steadily in view. This is as well known at Berlin as here; and, therefore, we read with a thrill of rage of the German Emperor telling his Parliament of the amiable feeling of himself and his Government towards us, and how surely he feels that the "day is not far distant" when we shall be the best friends in the world. We may, for convenience sake, be distantly civil; and we, you may be sure, will not bite where we can bite; but it is the preparation for that bite that occupies all minds, and whoever will give us our revenge may rule us at his pleasure.

At present, however, M. Thiers reigns supreme, and unapproachable. All the wearisome discussions of that memorable Committee of Thirty have been held in vain, practically, he is to "intervene" in the debates of the Assembly, when and how he pleases; it would be treason to renew the agitation for a Vice President, for as the President plainly says, he himself will not part with one atom of power so long as he can keep it. The illness that he was said to suffer from lately, certainly caused some alarm, but it has had no effect in inducing either he or any of his friends to consider the "situation" in which his demise might place the country. That is adjourned, owing to the excitement caused by the news that what we are led to believe will be a

"final" treaty of evacuation has been concluded. Its terms are much as it was said they would be, and they were brought before the Assembly this day week by M. Rémusat. "Next September our territory will all be free, and France will once more enter into the possession of her own." The news was received with lively satisfaction; and, after our Parliamentary fashion, a vote of approval, supplemented by half-a-dozen amendments, was carried, all but ~~un~~animously. First came the declaration that "M. Thiers, the President of the Republic, has deserved well of the country." Then came an amendment, claiming the honour of the work for the Assembly itself, to which another Deputy added a rider claiming its meed of credit for the "generous co-operation of the country." These amendments and improvements were very generally supported, but at last, the whole resolved itself into the original motion, giving the lion's share of praise to the President. A deputation waited on him with this, and he made a right royal reply, which plainly said that the Assembly had given him no more than his due.

Thus matters stand at present. According to the calculations that have been made, we can pay the last sou of the ransom, without furth disturbance of our industry than we have already suffered; but men who are not vehemently anti-Prussian grind their teeth when they hear it said that we have not better terms than we deserve (one of your leading newspapers told us so last Tuesday), and that only to M. Thiers would they have been granted. Then, too, we hear of "civil speeches" transmitted by telegraph between the President and Prince Bismarck and Count Arnim, and we reflect on the proffered willingness of the Chancellor "to do France a good turn if he could." We mark all this, and we trust we are as thankful as we ought to be.

There is positively nothing else to notice here. All discussion of constitutional changes is put off till "after Easter," and the same convenient period is to serve for a discussion of the question of the expulsion of Prince Napoleon.

We have not yet made up our minds what to say to, or about the "Spanish Republic," but if one half of what one hears should be true, that odd phenomenon will soon disappear, and various are the speculations as to its successor, or successors. The most probable, is allowed to be a Carlist Monarchy, but we are all such excellent Republicans, that this is deprecated on all hands; and yet the choice seems likely to be only between that, and "International" anarchy.

All is quiet as the grave in the lost provinces, much as it used to be in Poland some time since, but the idea that the people are "settling down" to enjoy the blessings of "German Unity," and the Prussian conscription, would be a most fallacious one. All who can, quit the country, in spite of all kind of petty official hindrances, but of course there are thousands who cannot, they

can, and will, however, keep up their love to France, and their hatred to Germany. There can be few open manifestations of this, for the imported officials are ever on the look-out, to shew their zeal, and a paltry display they make of it. But "estranged brethren" are not to be coerced into love, and the real distance between the native Alsacians and the half-policeman half-school-master who is set over them in every little commune, grows wider every day. Of a surety, should a war suddenly break out, these hated fellows would do well to decamp with more of haste than dignity, or they would probably never escape at all.

I mentioned to you, some time ago, from the communication of a friend who ventured some way into the lion's mouth, the ridiculous attempt of the German town council of Strasburg to limit the instruction to be given to children in French to one or two hours a day, although their parents would willingly pay for more, and indeed, from their commercial relations with France, might feel it a necessity that their young people might be able to speak our language (and *their language*, let Berlin say what it likes, and do what it likes) "with the fluency of a native," as advertising tutors say. And this colloquial fluency, the rising generation of Alsacians can, and will acquire at home, unless the speaking of French there is made a crime, to be judged by a drumhead court-martial of brutal East Prussians—are we to suppose that *this* mode of conciliation is in store? and if not, what real service can the trumpery restrictions of a Prussian Minister of Education produce? They may make him and his countrymen every year increasingly odious, but hate that is not, on the old tyrant's maxim, controlled by fear, is hardly the sentiment that any Government of sense and humanity above the level of Dahomy, would find it well to cultivate.

But "Alsace-Lorraine" is only a very small part of that mighty German Fatherland, which, like a great poet, has "awoke one morning and found itself famous;" consequently, bears its "greatness" rather awkwardly. So its dislike to be made "great, glorious, and free" against its inclination may pass unheeded; an Army Corps or two will always answer for the "preservation of order" among such degenerate sons of the Fatherland. There must therefore be something more immediately threatening than a projected "Sicilian Vespers" in Strasburg to account for the headlong haste with which our late conquerors are barring themselves in on all sides. Strasburg and Kehl are, it seems, to be compounded into one vast military position, the like of which the world has never yet seen; and, as I have before told you, the eastern and the southern frontiers of the new empire are to be made as strong as the skilled labour of Moltke and thousands more, dealing without stint with our milliards can make them. We may test some of these works one day; and their erection looks certainly as if Berlin expected to be attacked some day.

A very few years hence will have given us again our proper frontier in Europe, and what German Unity will then be, is a curious question, that need not be pursued any further just at present, though we most certainly shall not lose sight of it.

The Socialistic movement among the manufacturing classes in Germany, particularly in the "annexed" States, the "strikes"—even the Berlin cabmen have dared thus to defy authority, and, strange to say, have not been shot by the hundred—the intrigues, whether real or supposed, of the Jesuits, who are to be expelled, but have not gone yet, and the determined attitude of the Catholic clergy in general, must make the task of the new Prussian Premier no enviable one. In spite of all the loud assertions to the contrary, it has now come out, that the Emperor William is not a thorough supporter of the Bismarkian policy towards Rome, and it is considered probable that the Chancellor will eventually get a heavy fall in his contest with Churchmen who are quite as astute as he, and some of them, perhaps, not more troubled with scruples of conscience. The bills that are to "efface Rome" (so a vehement Liberal Professor has described them) are being voted in both Houses, the Upper having now been packed to some purpose, and it is announced that they will be sufficient to "assert the just rights of the State" against everything that "Rome and France" can do. This being so, it has been magnanimously resolved not to prosecute the Posen Archbishop as a "rebel." His offence, it seems, is no offence against any existing laws, so, in the spirit of genuine Liberalism, progress of free thought, respect for individual liberty, &c., it is resolved to make a law to reach him. This is a stretch of power that has been heard of before, only then it was in countries and times that did not lay claim to the overflowing Liberalism of Prince Bismarck's empire; and the archbishop may probably survive the shock.

As an additional guarantee for the peace of the world, no doubt, the *Cologne Gazette* has been enabled to enlighten the surrounding nations as to the preparations that Russia has thought it necessary to take, lest her dear friends, Austria or Germany, shall "inadvertently" again tread on her corns, as it seems they have lately been doing. Germany is "manifestly" arming herself on her eastern frontier—a statement quite undeniable—and an Austrian military officer has lately published a fancy sketch of the course of the next war, in which Russia is shewn to be terribly hampered by her "irreconcilable" Poles. The sketch probably has no more reality about it than the famous "Battle of Dorking," with which a fluent writer of yours half scared, half amused you, no long time ago; but it has been taken *au sérieux* by the Court of St. Petersburg, and all concerned are now warned to take notice that the new Russian military organization—i.e., universal military service,—is "complete," and that this means 684 battalions of infantry, with 398 squadrons of cavalry, and 308 field

batteries of eight guns each ; a modest total of some 1,300,000 men, to which fifty Cossack regiments can be added if necessary. The whole country, we are told is divided into 250 dépôt districts, each with a Reserve Battalion 400 strong, another item of 100,000 men ; and all these, we are positively assured are real, and not paper battalions, such as once were found on many European establishments.

Surely some work will soon be found for all this mass of armed force ; it can hardly all be required for the "military promenade" to Khiva ; though everybody except "our correspondents" and such like imaginative geniuses, is quite in the dark as to what is doing or is intended in that quarter. The telegraph gives now and then scraps of "news," from which it might be inferred that the Khivans are taking the initiative, and have put some of the Russian posts in danger ; but I think this will turn out to be a mere *canard* set about beforehand for the purpose of justifying the retention of Khiva when once gained.

What are the exact dimensions, or even the objects, of the Russian expedition against Khiva, I venture to say that other nations will never learn, until it is too late to make use of that knowledge. "*Fait accompli*" is the strong point of the Muscovite, and if you don't happen to like what he has done, you have only to fit out an "avenging expedition" to the neighbourhood of the Thian Schan, or the mouth of the Amoor, or the environs of Erivan, or to the Atreck, to put it all to rights. Your statesmen evidently have an uneasy feeling, that all this Russian advance can have only one real terminus, namely, Calcutta, and that a Russian Viceroy instead of a British one is a contingency not so very remote. But, of course, it would be "*brutale*" to say so, in so many words, and so Count Schouvaloff comes to you, giving and receiving the "most satisfactory assurances," which, perhaps, blind your peace-at-any-price Ministry (we *can* give them no other appellation, remembering how they abandoned the Danes in 1866, and us in 1870), but do not deceive Continental observers. Austrian statesmen seem especially short-sighted in this matter, and one of them has lately declared, that all this clamour about the Khiva expedition has been "got up" to serve quite another purpose, namely, a renewal of the attack on the "sick man" on the Bosphorus. This attack may be very likely impending, for your Ministers have formally released Russia from her Crimean War obligations, but still I think there is something real about the Khiva campaign. Of course, the plea that it is only undertaken to release a few Russian captives, just as you marched into Abyssinia to set free a dozen German preachers and mechanics, is laughed to scorn, as we verily believe no other people on earth can be found to rival you in such exploits, but we see in our own expeditions against the Dey of Algiers in 1827, something to enlighten us as to the possible motives of the advance on Khiva in the present year of our Lord.

For good or for bad, the Czar has set his iron heel on Caucasia, and he cannot any longer "use up" the discontented Poles, who obstinately refuse to see the advantage of being ground down to the level of the Russians. Yet the supply of "discontent" is as great as ever, and if the Khivans will only kindly kill off by the thousand, the Poles pitted against them, themselves receiving some damage in return, two birds will be killed with one stone. There is, too, an idea, which seems not void of probability, that the regions to which the possession of Khiva will give access, are rich to an almost fabulous extent, in the precious metals, in coal, also, and in iron. No wonder, then, that the "barbarous hordes" that stand between the Czar and such treasures should be, by obliging Russian officials, who probably never saw them, pronounced miscreants of the deepest die, and stained with every vice that disfaces humanity. If say ten millions sterling can be drawn any year from an expedition to release half-a-dozen Russian Jews who may or may not, have fallen into the hands of the Khivans, what a blessing it will be; it will pay for a new equipment of the Russian Army, which may soon have work on its hands. Germany is giving offence, by her fortifications on her Eastern frontier, which says the "*Min*," *must* be directed against Russia, for there is no one else in the way; Poland, Hungary, Austria, are all in ill savour, and will assuredly feel Russia's heavy hand at the first convenient opportunity; and Turkey is in the worst case of all, for she is being subjected to the indignity of being "protected" by the Czar, against pestilential little Servia! You see the train of gunpowder, the only question remains, whence will come the spark, but this will soon show itself.

As to news from Spain, we have only what the Carlists supply us with. They, although they have so long been "pursued by our noble troops," as Zorilla and Co. used to say under the Amadeo dispensation, are manifestly masters of the situation in a military point of view. Whilst the Army is dissolving, under the fantastic ideas of the Republicans gone stark-staring mad, chiefs whose names would fill a page, but would not interest your readers, beside being most of them pure Basque, and so unpronounceable by the foreigner, are appearing in every quarter, with a following of fifty or one hundred men each; quite enough to lay a wealthy burgher under contribution, or to destroy a railway tunnel—from the nature of the country, such abound—or to burn a station. These things they evidently do, daily and hourly, and when the rabble that call themselves "Volunteers of Liberty" appear on the scene, one of two matters seems to be the order of the day. Either the Carlists have gone home quietly with their spoils,—just the thing the gallant Volunteers seem to desire—or else they have perversely hid themselves in some ravine, and as the vapouring, swaggering mob come fairly within range of the excellent arms

that the Carlists can buy, though it seems the "Government," even King Amadeo never could, *crash, crash* comes a volley, and the intending assailants take to their heels at the double, fully convinced of the advisability of "running away" if they still entertain the hope of "fighting another day."

This, though a brief, is, I believe, a faithful picture of the Carlist war as at present conducted. That the operations will enlarge as the season advances, is naturally to be expected; and it is evident, from the confession of the "Republican" papers, that all that is valuable in the Army (ex-Army it might be termed) is following steadily to the Carlist side. Nor is this any wonder. Officers and gentlemen naturally decline to associate themselves with the brutal mobs of Madrid, Seville, or Barcelona, and even the private, from professional associations, looks down with contempt on such a set of nobodies as now pretend to control the destinies of his country. He *can* have no respect for a body where everybody aspires to command, and nobody knows how to obey. The gravitation of the main body of the Army to the Carlists seems therefore only a question of time; and it also appears to offer the only probable solution of the present imbroglio, which has but to last a little longer to turn the fair Peninsula into a scene of horror compared with which France in 1793 would shew favourably.

EDITOR'S PORTFOLIO;

OR,

NAVAL AND MILITARY REGISTER.

After more than four years of misrule, devoted with all its powers to hurrying the country on in the fatal path of Democratic Revolution, the insolent, aggressive, intentionally-unjust Gladstone Ministry has fallen. With a singular felicity, accorded only to "special favourites of Heaven"—whether wise men or fools we leave our readers to determine—it still retains a kind of galvanized-corpse existence, owing to the scornful forbearance of Mr. Disraeli, who wisely declined to relieve it from the responsibilities of office whilst so many hungry expectants of office still remain in a certain Honourable House, and are ready, like the renowned Joseph Hume, that father of "Liberalism," to "vote black white, just to keep these men *in*"—the "one thing needful" with your pattern Liberal. Mr. Disraeli, in defending his resolution not to take office unless he had a working majority at his back, referred, very naturally, to his own painful experience of 1852, and declared that he would never again encounter such snubs from one man who pretended to support him, such desertion from another, who, though professing to be entirely in accord with him on Monday, on Tuesday, when some crucial motion was coming on, suddenly forgot the fact, and, "quite by inadvertence," accepted any invitation that kept him from the House, and left his friend in a minority. Many "Liberal" members, of course, exclaimed against the idea that *they* could possibly act so shabby a part even to a political opponent; yet, a proof of Mr. Disraeli's foresight was exhibited only on the Monday following, when the *pro tem.* Gladstone Ministry was left in the lurch on a motion of Mr. Gathorne Hardy as to the wonderful "Rules" supposed to have been established by the Geneva Arbitrators. The prospect of the loaves and

fishes having become rather overshadowed, the so-called "Ministers" had really not a creature to say a word in defence of their atrocious bungling and blundering, and though the civility of their opponents allowed them to escape a direct vote of censure, it was only, as Jack would say, "by the skin of the teeth." More mortifications, even of a more serious kind, no doubt await them, as it seems that the learned in party tactics declare that they must remain in Downing Street a few months longer, so that the General Election may take place at the customary period. Looking at the interests of the nation, as distinct from that of any party, we own we are not quite convinced by the reasons urged, that the nation ought to waste another quarter's salary (no inconsiderable item in these days of "economy") on a dozen men who have no claim whatever on either its confidence or its liberality. The only consolation is, that it, in all probability, will be the last sum of hard cash thrown away on "Liberalism" for some time to come, and we must pay these "indirect damages" with a grin, and bear them as we may; it will only be a small addition to the "testimonial" which the admiring nation is so very ready to give to the Geneva Arbitrators—hoping never to hear of them again.

At a time when the United Services are naturally looking forward for such relief from the incubus of Liberalism and the nuisance of amateur Army and Navy Reformers, as the downfall of the Gladstone Administration may be naturally expected to bring about, it is a subject of sincere regret that the talents of such a man as the late Mr. Lowry Corry should be lost to the nation. We have never concealed our opinion, that the nation will never have its money's worth for its money, nor the Services themselves be, as all must wish, zealous in her cause, and content individually, so long as we persevere in putting civilians at the head; but still, there are civilians, *and* civilians; and the late right hon. gentleman was of the best class of these. Some of them, in their anxiety to keep clear of "professional bias," are content to say "Yes" or "No" to suggestions offered by permanent officials, as to the real value of which they know no more than they do of the results to be gained from the expedition next year to observe the transit of Venus. These are bad enough, being neither ornamental nor useful; but there are others who are more actively mischievous, who, literally, are quite ready to "take the command of the Channel

Fleet, with or without five minutes' notice ;" who reduce "Boards" to "phantoms," and Naval officers of established reputation to mere "clerks ;" indeed, so fast in this direction was the pace of one eminent man who is not yet quite forgotten at Whitehall, that if he had held office much longer we should not have been surprised at seeing him, "by a stroke of his pen"—that fatal instrument in the hands of the "heaven-born genius"—transform his First Naval Lord into head doorkeeper ; promoting him, in fact, from a merely nominal post to one of some real weight and responsibility. Another civilian kindly leaves his counting-house, and conducts our Navy for us on such "sound commercial principles," that the supply of the most necessary stores gets into hopeless confusion, and the Estimates grow larger, and more unsatisfactory, every year. Of altogether a different class from any that we have alluded to was the late Mr. Corry. He was a Lord of the Admiralty under Sir Robert Peel, and, even by the confession of his political opponents, a most hard-working official, who did not come to his post with the comfortable conviction that "he knew all about it" without ever having taken the trouble to learn ; and his "apprenticeship" he turned to good account when he became First Lord in 1867. It is but too well known to how low an ebb the Russell Ministry had suffered the Navy to fall, and Mr. Corry had to stem a most unprincipled opposition from the very men who had done this, in endeavouring to undo the mischief. But he was a man of courage, and he heard unconcerned their charges of "extravagance," for he knew that he was urging real economy. Unfortunately his tenure of office was too short to allow him to amend all that had gone amiss, and, as we have been blessed with a "Liberal" rule ever since, of course the arrear has not been brought up. The task, however, must be taken in hand, and, without indicating names, we think we may venture to say that it will be successfully accomplished when the stage is again clear for honest men who really have a policy, and who need not resort to "sensational" experiments on all the established institutions of the country to keep themselves in office, long after the world at large has seen them break every promise of "economy combined with efficiency," &c., &c., &c., with which they deafened us some four or five years ago.

The 5th of next September is named as the day on which the

last armed German will turn his back upon France, and, if the German press in general is to be taken as expressing the national feeling, it will be felt quite as much of a relief on the east as on the west of the Rhine. Though their heads have been turned, and no great wonder, by the triumphs to which Count Bismarck and other then needy noble swordsmen led them, the German people has, in the interval that has elapsed since every hour the telegraph brought the account of some new victory had time to sober down, and ask what they had gained, as distinct from their rulers, by all the blood that has been poured out, and by all the treasure that has been gathered in? The reflection cannot be satisfactory. A trifle is added to the notoriously poor pay of the Government officials, and a very large sum to the hitherto scanty revenues of the new Wallenstein and his helpmates; some paltry reductions of taxation are promised, which are about as important as the feat of one of our Chancellors of the Exchequer, who when the pressure of taxation was complained of, sacrificed a duty of *a farthing* on the pound weight of pepper! But the great and obvious destination of the "loot" of the last war, is undeniably being devoted to such preparations for another, as show how unreal the present "peace" is known to be by the men who have the unhappy privilege of setting the world in a blaze. The fact is, the discovery has been made that it is a very profitable affair to pick a quarrel with a nation, rich and notoriously "impulsive;" which feels dishonour as a wound, and so is ever at the mercy of a cold-blooded, crafty, unprincipled rival. France, unhappily for the world as well as for herself, has once fallen into this trap; but her severe losses will surely be a lesson to her, not to give way to "impulse" again. Lst her only be mistress of herself, and a great future is before her, whatever form her Government may take for the next few years. It is her duty to the world, to render the success of any renewal of the war on the part of Prussia, for the mere sake of plunder, impossible. Let her bear this in mind, and she will foil the sinister predictions of those who venture to say, that the last day of German occupation will be also the first day of disorder. She has, of course, many questions to settle, as of the electoral law, the definite form of Government—ever a dynastic question—will crop up some day; but if she will, all these can be settled calmly and firmly, and Europe will not again run the risk of seeing real civilization recede before the advance of something of a very

different nature that menaces it from "freethought," atheistic North Germany.

It is impossible not to see, that the success that has attended the operations of the German arms against France, though very productive in "material results," more valuable than the clocks, and watches, and silver spoons that were at first its most tangible results, is not without its reverse. The "masses" have seen how, by able leading, they may for a time carry all before them, and they very naturally have expected some slight instalment of the spoil, that they have been so very instrumental in procuring. It is all very well, to talk of the masterly strategy of Prince This or Count That, but the German peasant is at least wise enough to see that, without his "order" consenting to be driven forward, and thrown, regardless of the sacrifice of thousands such as he, against French foes and mitrailleuses, all this grand strategy would have been useless; it is his blood that has carried the day. And now that he sees *all* the honours and rewards monopolised by those who only told him "to fight away for the Fatherland," and scarcely ever risked their own precious skins in the matter, he seriously doubts the advisability of playing the same game over again. He is not deficient in pugnacious qualities, but he thinks, in future, it may be as well to exert them, and run the consequent risks for his own benefit, and not for that of the Nobles, who alone profit by the present arrangement. Socialistic theories spread amazingly when men are in this turn of mind, and many people, who decline to be dazzled by the temporary success of the "blood and iron" policy, think themselves fully justified in predicting, that the upshot of the late Nobles' war for the plunder of France may prove Wörth and Gravelotte, and other places where ignoble German blood flowed freely to have been Pyrrhic victories, as surely fraught with destruction to the titled orders of Germany, as ever were the follies and vices of the old French noblesse. With a strange infatuation, the greater German rulers, ever since the wars of the French revolution, have busied themselves with the task of "mediatising," or otherwise getting rid of the numerous minor Princes. Prussia has the credit, or discredit, of having acted much in this line, and by the "annexation" of Hanover, Frankfort, Hesse, &c., has audaciously violated all the old principles of international law. Her "military monarchy" is

now, in its turn, threatened with annihilation, by the "armed nations" that it has drilled to arms. Men who have served in the field as serjeants or corporals, have often before now shown that their acquired stock of military knowledge is sufficient for all useful purposes; it may not be quite so "scientific," as if picked up at Berlin with a hundred other noble cadets, but backed by men who at least believe that they are fighting in their own cause, and not merely to make Count Bismarck a Prince, or to perpetuate the rule of Junkerdom, it may carry all before it. So it has been, as in the case of many of the first Napoleon's last Generals; they had hardly as much "science" among the lot, as would pass a Sub-Lieutenant of the present day, but armies and crowns (even Prussian ones) stood a very poor chance with them.

Disorder reigns supreme, just now, in the lucky Spanish Peninsular, owing to the miserable cowardice and folly of all the other parties (and they are Legion), the little, miserable clique of Republicans has pushed itself to the front, and now finds itself quite unable to decide what it shall even attempt to do, in such unlooked-for circumstances. The proper thing would be, for it to imitate the worldly wisdom of the young "Savoyard boy," who was so made the theme of its reproaches, and quietly retire to private life. The experience of about a century has shown that a Republic will never take firm root in France, and to imagine that it will do better in Spain, is a fancy only worthy of a maniac. Every thought and feeling of that great body of the people is utterly and entirely opposed to it. Though no admirers of the Republican form of Government in itself, we are free to confess that life and liberty may be secured under it, where the citizens are by nature "law-abiding," in lack of any strong provocation to the contrary, as we see daily in the United States; but no such self-restraining power seems to be given to the people of Southern Europe, and the strong hand of an absolute Monarch is necessary to them, if they would avoid the clutch of a Military Dictator. The men casually cast to the surface in Spain at the present day, are, emphatically, of no consideration or weight, and the idea that they can either induce or enforce obedience is preposterous. The country is literally falling to pieces, after all the efforts of the wonderfully wise statesmen who concocted the Quadruple Treaty of 1834; and if the different factions are allowed much

longer to go on unchecked we seem likely to have in one place a "Unitary Republic," which means the blood-thirsty will of the mob of Madrid, a *canaille* unmatched in any other country, in others, a Federal Republic, consisting of as many "States" as towns, and as ready to plunder and murder their neighbours as the miserable Italian "Republic" of the middle ages, when each noble house fortified itself against each other; and lastly, as a band of incendiaries stalking all over the country, the "International" well supplied with petroleum. The only ray of light is in the Northern Provinces, where the partisans of Charles VII. at the very least hold their own against the motly hordes of their opponents. With the spread of "Republican" ideas, the army is dissolving, the officers, and such of the men as still retain any of their military virtues, joining the Carlists; the rest living in listless idleness, which, for the sake of mere subsistence, must soon be supplemented by plunder; and some few joining "The Volunteers of Liberty," who are likely to be the most dangerous of all. It is sincerely to be hoped that the legitimate King may soon be able to take the field, and to bestow on his country the solid benefit of a firm and orderly Government—a benefit that it has never had since the bigoted Ferdinand unwarrantably overthrew the established order of succession to the throne in favour of the daughter of his intriguing, and not immaculate queen. The nation never heartily accepted the change, and its best prospect of future tranquillity is in retracing its steps after forty years wandering in the wilderness of so-called "Constitutionalism."

The importance with which the Central Asian question has been now recognized by the public journals has caused us to break our usual custom, and give a resumé of the interesting lecture given by Sir Henry Rawlinson at the meeting of the Geographical Society, on the 22nd ultimo—a lecture as pregnant with facts as it is full of sound, serviceable advice.

"Having given a description of the topography and physical changes of the Oxus district within historic periods, showing that the southern arm of the Oxus, which at one time ran into the Caspian, was dried up, he quoted the opinion of a Russian officer that it is impossible to restore that communication. The great value of Khiva to the Russians would be a connection with the prolongation of the Oxus to the Caspian, the eastern shores of which were receding. Russia could not supply the labour neces-

sary for clearing out the canals and keeping them intact for the purpose of irrigation, without which the whole district was a desert. The attention of Russia had first been directed to Khiva at the commencement of the last century by exaggerated reports of the auriferous sands of the Kara Su, which was spoken of as a sort of Eldorado. It was a branch of the Oxus, running north to the Sea of Aral.

“ He described the several expeditions sent by Russia—the first in 1717, which, after marching nine hundred miles, received a disastrous defeat, and was practically destroyed. The next serious attempt was the ill-fated one of 1839—1840, which resulted in disorganization and a retreat with heavy loss. Since then, four Russian officers had visited Khiva, the object being to induce the Khan to release his Russian prisoners and to conclude a treaty of friendship. Ten or twelve years later, when the Russians began their advance up the Juxartes, they again came into collision with the Khivans. In 1859, Russia set forth a manifesto of the grounds of her quarrel with Khiva, complaining that her commerce was impeded, her merchants plundered, and her subjects imprisoned ; but one thing was to be borne in mind—that, in judging of the sins of Khiva, we must take the status of 1869, for from that time war must be considered as commenced, and all subsequent outrages could only be looked upon as retaliatory for the invasion of the country.

“ Sir Henry then proceeded, with the aid of a noble map, of very large scale, to point out the position of the several Russian forts which have been founded, some since abandoned, with a view to the subjection of Turkestan and to subsequent operations in regard to Khiva, and to show the position of the proposed routes for Russian commerce towards Khiva and China, and also to show that the most southern of these ran through a country claimed by Persia and inhabited by Khoord tribes, who were amongst the most warlike in the world. An important consideration attaching to that southern route was that it leads to Mero, the most important strategical position in all the East, since it was situated at the intersection of the great north and south and east and west roads of Central Asia. It was not true that Russia had occupied Mero, which was virtually independent, though it was claimed, and had been occupied by Persia, by Bokhara, by Herat, and by Khiva.

“ Describing the important post of Chikishhar, now occupied by the Russians, in the S.E. corner of the Caspian, as their base of operations, and the covetous looks, *absit omen*, which they were casting on the only good part of the district, that of Astrabad, belonging to the Persians, he gave an account of reconnaissances that had been made by Russian officers to show that Russia possessed an adequate knowledge of the only three routes by which Khiva could be approached from the west. Showing the positions

occupied by the different tribes of Turcomans, who amount to one million of souls, he said that if those tribes could be conciliated the Russians might obtain 50,000 of the finest light cavalry in the East; but it was far more likely that they would prefer to remain for ages the scourges of Russia and the enemies of civilisation and commerce; and if Russia thought it necessary to bring them under control, it would be necessary to build a line of forts along the line of the Atrek—a measure which would be resented by Persia, and which would, moreover, be pretty sure to involve Russia in political complications with this country.

“The difficulties of any Russian expedition to Khiva arose from the fact that it was surrounded by waterless deserts; and, as it had been found impossible to send a single expedition adequate to the reduction and occupation of the country, it has been determined to send four columns by independent routes to converge upon Khiva. Two of these columns would proceed to the eastward from different points on the Caspian, and two to the southward from either side of the Sea of Aral, the length of the march varying from 1,000 miles to 480. The aggregate force to be sent amounted to 4,000 men, with forty pieces of artillery. The whole number of the inhabitants of Khiva was only 500,000, and their military power was contemptible; so that if the Russian force could once encamp before their capital there would be no serious opposition. He abstained from any speculation as to the immediate effect of the four columns reaching Khiva without mishap, as military success would then be assured; but the more complete that success might be, the more immediately would Russia be landed on the horns of a political dilemma. If by the mere pressure of a powerful demonstration Khiva yielded to such terms as Russia might choose to impose, then she would have achieved a great result, honourable to herself and beneficial to the world at large. But if hostilities once broke out, and she proceeded to occupy the country, difficulties would then commence, and to retreat or remain would be equally injurious. Russia had volunteered a declaration that her object was the mere vindication of her honour, and that she had no intention to annex the country; but she had not sufficiently considered that, by evacuating the country after occupation, she would lose far more than she had gained before. Orientals could only explain such evacuation as the result of weakness; and what the effect of such a serious blow to her prestige would be likely to have on Tashkend and Samarcand, we have had experience in Afghanistan in 1842.

“It was still generally believed throughout Asia that we were driven out, and to that belief we owed the Sikh war and the Indian mutiny. In the same way, a Russian evacuation of Khiva would obliterate all recollection of her present glory, and hold out a dangerous example to subject races to attempt to escape from the Russian yoke. If those considerations induced Russia not to

evacuate Khiva, she would by remaining be committed to an expenditure at least equal to the half-million sterling per annum which Turkestan now cost. What was there to compensate Russia for this expenditure of one million, to say nothing of the sacrifice of the lives of her soldiers? Those who desired her to continue in a course of imprudent expenditure would be glad to see her occupy Khiva; but none of her friends could see her occupying such a position. If she did retain Khiva, it would show the value she attached to commercial and political rivalry with England. Though he should prefer, in the interests of peace, that Russia should not enter on a career of conquest in that district, he saw no reason at present to feel much anxiety as to the result. Asia was large enough for both, and we might each pursue our paths and missions without jealousy. Our position was quiescent, while hers was progressive. Our means were becoming more consolidated, while hers became more insecure. And, therefore, we could afford to wait, conscious that, when real danger approached at any point, we were strong enough to arrest it."

CORRESPONDENCE.

[With the view of promoting the interests of the United Services, this department of the MAGAZINE is open to all authenticated communications, and therefore the Editor cannot hold himself responsible for the opinions expressed.]

THE BRITISH SOLDIER.

Sir,—In the March number of Colburn's United Service Magazine, in the article entitled "The British Soldier," it is stated p. 361, that when the "Birkenhead" was sinking, the commander of the vessel shouted out: "All those who can swim jump overboard and make for the boats," but that Captain Wright dissuaded the men from thus acting lest the boats with the women should be swamped. This statement I have since learned is not strictly accurate. Various concurrent testimony shows that Lieutenant-Colonel Seton, 74th Highlanders, the gallant commander of the troops on board initiated the precautionary prohibition and that his efforts were nobly seconded by his subordinates, notably by the late Colonel Wright. Colonel Seton was drowned in the wreck and it is only due to his memory that the honour of his self-devoted measures should be attributed to the right source.

HENRY KNOLLYS.

THE 7TH ROYAL FUSILIERS.

Sir,—I sold out of the "Royal Fusiliers" as long ago as 1857, and now seldom have time for military literature, it was therefore quite

accidentally that I heard of your Record of the services of my old regiment, and have only this day read it for the first time.

I ask leave to say a few words as to the number of officers and men of the regiment who received the Victoria Cross in the Crimea. I am ashamed to find my own name figuring in your article as the only combatant officer who received the Cross. The number bestowed on the regiment was absurdly insufficient, but I am glad to say that you have omitted one at all events, namely, "Alma Jones," see 'Gazette' of September 1857. His service is there recorded as follows, "for having distinguished himself while serving with the party who stormed and took the Quarries before Sebastopol, by repeatedly leading on his men to repel the continual assaults of the enemy during the night. Although wounded early in the evening, Captain Jones remained unflinchingly at this post until after daylight the following morning."

But it was simply absurd to give the Cross to only two officers of the 7th. If a plebiscite of the Light Division had been taken in the Crimea the names of Troubridge, Turner, Hibbert, Waller, ("Bobby" Waller the present Colonel of the 1st battalion) Cooper, Browne (Lord Richard) and "Inkerman Jones" would have been infallibly added without a single dissentient.

In addition to these however there ought to have been added those who were killed, among whom were presumably the most deserving of all, with Yea at the head of the list.

And why should the Cross not be accorded to a man when he is killed if he deserved it? Why should he forfeit it through the accident of being killed? Would it not be more prized by his relatives even than by himself? Would it not be an intense gratification to his relatives to see his name once more in the 'Gazette'?

I see you allude to the nickname of the regiment in the Crimea, "the fighting 7th." The following anecdote relating to this is worth preserving. On the 18th June the regiment was, for all useful purposes, destroyed, and ought to have been withdrawn from active work, as with the exception of one or two officers who had landed a few hours prior to the attack, and who, if I recollect right, were kept in reserve during the attack, there were none left fit for duty but Turner and myself. Nevertheless we were sent down with the remains of the regiment as part of the ordinary trench guard on the evening of the 19th! On our way down the ravine, we met the body of the Colonel being brought up for burial, so that the finest and bravest soldier of the British Army was buried without the attendance of one of his officers. When we got to the trenches however, we received a tribute of respect which was no doubt paid in great measure to the Colonel, whose body had so recently passed in the opposite direction, and who had made the regiment what it was. As soon as we entered the trenches we were cheered loudly, and as we went forward, the men of the other regiments spontaneously passed the word "make way for the 'fighting' 7th."

Had the Victoria Cross been conferred on Yea and sent to his relations, it would of course have conferred no additional honour on his memory, but his name would have immeasurably increased the value of the decoration.

I am Sir,

Your obedient servant,

W. HOPE.

CRITICAL NOTICES.

THE ABOLITION OF PURCHASE AND THE ARMY REGULATION ACT OF 1871.
By Lieutenant-Colonel the Hon. A. Anson, V.C., M.P. (Henry S. King and Co.)

Colonel Anson does well to bring forward the case of the Purchasing Officers again and again, distasteful as it is to gentlemen. Nothing is to be done without the "Agitate! agitate! agitate!" of the Irish demagogue, when, as in this case, you have a "squeezable," if not moribund Ministry to deal with. Strange as it may seem to the general public, the case of the Purchasing Officers has never yet been laid before them, with either the fullness or the fairness with which the subject is treated in this striking pamphlet, and without any interested views, we seriously advise them to give a calm reading to its statements. They will then see, that there really is something to be said on the subject, which neither Mr. Cardwell, nor Lord Delawarr, nor even *The Times* have laid before them, and they will see that an injustice is being deliberately practised on a body of many thousands of gallant gentlemen, who really "have done the State some service," that would rouse a formidable amount of indignation, did the sufferers belong to any other class of society. No one is more deeply interested than the officer in seeing even practical improvement in the condition of the private soldier carried out; but he surely should not be condemned as unreasonable in asking for a small share of consideration for himself; and all he asks would not equal the "clear shilling a day" which Mr. Cardwell, in defiance of arithmetic, talks so glibly about.

A DEFENSE OF THE RULE OF THE ADMIRALTY COURT IN CASES OF COLLISION BETWEEN SHIPS, in a Letter to the Rt.-Hon. Lord Selborne, &c.
By H. C. Rothery, M.A., Registrar of the High Court of Admiralty and of Appeal. (Longmans and Co.)

This is a very interesting pamphlet on a very interesting subject; but we own to fears of the matter receiving the attention that it deserves, when we see a man of such deserved eminence as the present Chancellor, Lord Selborne, plainly pleading to an almost ludicrous misconception on the subject. That subject, we must explain, is, How is the damage done by the accidental collision of ships to be apportioned between them? and his Lordship states, in plain terms, that his apprehension of the Admiralty rule is this: If A's ship, value £10,000, goes down in collision with "any other man's" ship, value £50,000, the Admiralty Court says, "Here's damage to the amount of £60,000; half of that is £30,000; B. will pay over £20,000 to A., which, with his original value of £10,000, will make a sum of £30,000. A very comfortable doctrine for A., but which Mr. Rothery indignantly repels as the law of any tribunal deserving the name of a Court. For a rule so absurd and mischievous as this, probably Lord Selborne would substitute the common-law rule, that where both ships are to blame, no damages shall be recoverable by either party; but a perusal of Mr. Rothery's very able and temperate pamphlet will shew that our Admiralty Court, being presided over by some of the first civilians of our country, or perhaps the world, are not liable to the reproach of any such monstrous doctrine, as would give the poor wrong-doer a premium for sinking his wealthier opponent. "It is a well-known fact," says Mr. Rothery, "that if a vessel with her bow, which is her strongest part, strikes another vessel in her midships, which is her weakest part, she may send the other vessel to the bottom without sustaining any or scarcely any injury herself. [The

horrible Dungeness collision is a case in point.] Suppose then that the captain of a vessel found himself in danger of collision with another vessel, and that he knew the law to be that, if both were to blame, each would bear his own loss, what would he instantly do? Why, without doubt, turn his bows towards the vessel, feeling that, if each party had to bear his own loss, it would be better for him to receive the blow upon that part of the vessel which could best resist it." Everywhere, except in the common-law courts of England and the United States, the law is such, that it is the positive interest of both captains to lessen the amount of damage as much as possible, as it all has to be equally divided; but under our common-law rule, a premium is offered for inhumanity, and it really becomes the duty of each captain, "in the interest of his owner," to turn his bow towards the other vessel, and run her down, rather than sustain even a trivial injury himself. This is a horrible consideration, and we trust it will not be allowed to be forgotten, when the "rule of the road at sea" to which our friend, Mr. Stirling Lacon, so praiseworthy devotes himself, comes again under Parliamentary discussion, as it surely must ere the case of ship-owners *versus* seamen raised by Mr. Plimsoll, is settled in accordance with those principles of justice to all classes, that once formed a distinguishing mark of our national character.

THE GREAT DUTCH ADMIRALS. By Jacob de Liefde. With Illustrations. (Henry S. King and Co.)

We see that this pocket volume is a reprint from "Good Words for the Young," and we presume that it is a translation from the Dutch; but as it lacks even a line of Preface, we have no certainty in the matter. Glancing at its contents, we observe that it comprises the lives of seven Dutch seamen, some known to us by repute, as the two Tromps and de Ruyter, and others who will be new to English readers in general. The period considered by their exploits is the 17th century, and the events of our wars with Holland in the time of the Commonwealth and Charles II., are told somewhat differently from what we have been accustomed to read them. As one instance, we may notice the appearance of the Dutch fleet in the Thames and the Medway in 1667. Of course, the valiant De Ruyter is made to achieve a great success, but, equally of course, not a word is mentioned of the treachery of the old Chatham-dockyard people, fellows of the Puritan sort, who had served under the Commonwealth, and who cut the chain that was stretched across for the protection of the ships. But we presume the book is meant chiefly for young readers, and are not likely to trouble themselves with such points as these; they will be better amused with the adventurous Polar voyages of Heemskerk, or the cruises of Piet-Hein, who brought the Spanish treasure ships to book in a way that our own Buccaneers might have envied, but whose fame, we believe, is now just made known to English schoolboys with a taste for naval adventure. All such will like the volume.

BRITISH GUIANA.—The Essequibo and Potaro Rivers, with an Account of a Visit to the recently-discovered Kaieteur Falls. By Lieutenant-Colonel Webber, 2nd West India Regiment. With Map and Frontispiece, and Descriptive Notes on the Geology of Guiana. (Stanford.)

The public papers have recently given to us notices of a waterfall in British Guiana, which for height, width and volume of water, seems almost entitled to be spoken of in the Yankee style, as "a river set upright." This spot, the author and another party reached in April last, and though the journey was not fatiguing, he regarded himself as well

repaid by the sight of a stream, that forced him to exclaim, "This is far grander than Niagara!" Nor was this mere vague exclamation. He has paid several visits to that "wonder of the world," and he still declares that the scene on the Kaieteur "is equal to it, though after another fashion. What the Kaieteur loses, from a comparison with Niagara in width and in magnitude of the descending flood, it gains in height [its height is *seven hundred feet*!] while the surrounding scene is far lovelier" "Place the heights of the Montmorenci on Niagara, and over these let the Sault Sainte Marie shoot the waters of the St. Charles, and the North American traveller can form some idea of the Kaieteur as we saw it; but let him also clothe the sides of the valley, through which the river has seemingly eaten its course, with the lighter timber of Virginia or Kentucky, which adds grace and beauty to this grand scene." Col. Webber's party was accompanied by a photographer, and a reduction of one of his productions forms a frontispiece to the volume. The scene of "the Kaieteur Waterfall," as thus given, is very striking, and is well worth the price of the book.

NAVAL AND MILITARY INTELLIGENCE.

MOUNTED RIFLEMEN.—An interesting lecture on this subject was delivered on Tuesday evening, March 4, at the United Service Institution, by Lieutenant-Colonel Evelyn Wood V.C., Lord Elcho in the chair. The lecturer said that before our next war it must be decided whether some portion of our cavalry or of our infantry shall be converted into Mounted Riflemen. Dismounted cavalry soldiers could not, he argued, compete on anything like equal terms with infantry, for men could not by any training be rendered equally efficient on horseback and on foot. Illustrating this point from the history of European cavalry during the last 100 years, and by quotations from Napoleon, Jomini, and other writers, Colonel Wood argued that a dependence on their firearms destroyed the dash of cavalry, who should be taught to rely chiefly on *l'arme blanche*. Our cavalry ought not to be called on to perform the duties of mounted Riflemen, a duty for which they were unfitted by their dress and equipment, as well as by their cavalry training. Nor ought a corps of Mounted Riflemen to take on themselves the duties of cavalry, and so to be allowed to grow into indifferent horse. The corps he would propose to establish should consist of trained marksmen on horses and vehicles, and should invariably dismount to fight. In the organisation he proposed, each company would number 150 men of all ranks, seventy-seven of these to be mounted on horses, and the remainder on Irish jaunting cars, drawn by two horses and driven either from a seat or by a rider. For men seated on cars about 20 per cent. of horsemen would always be required to lead an advance, if not acting with cavalry. The cars would be equipped with tools, arm racks, an ammunition box, and with a long rope, which could be stretched between two of the cars, and to which the riding horses would be fastened, while all, or nearly all, the riders, officers, and men were skirmishing on foot. The horses would also be hobbled by an apparatus of straps which could be put on in nine seconds and removed in four seconds. But officers and men should be selected from the infantry, and the men should carry on their backs the regulation infantry rifle with a sword-bayonet worn at the side, should wear no spurs, should carry a hussar whip on the bridle and should wear the infantry head-dress and coat. The trousers should be pulled up a little, and the gaiters should be as high as the present cavalry boot. The maintenance of an infantry coat and headdress was essential, in order to impose upon the

enemy, as mounted troops were not feared when in small numbers. He would allow no polished horse-equipment or harness, and in order to facilitate mounting and dismounting, he would adopt a hunting saddle, and no valises should be carried on the horses. For officers he would select men who rode well, had good eye-sight, were ready, self-reliant, could talk at least one foreign language, had obtained a first class certificate at Hythe, could sketch roughly, had gone through a short course of electric telegraphy, and were good regimental officers. The non-commissioned officers should be active, intelligent, young men, with a first-class certificate of education, and the soldiers should be smart, intelligent, small men, first-class shots, with a third-class certificate on education. The pay should be that of cavalry, but horses and saddlery should be found for the officers, and extra pence should be given to non-commissioned officers and privates who possessed first and second-class certificates of education, since education would be specially valuable to their detached service. If four such companies, as he proposed, were raised; two would be at Aldershot, one at Shornecliffe, and one in Ireland; and when once the scheme was started the expense might be economised by cutting down the battalions staff. He would throw the duties of the paymaster on the adjutant, as in the Militia, and in such a corps the captain should have increased powers, and should train, discipline, and command his men. He advised that the rifle should be carried over the back, because the man only fired after dismounting, and by attaching the weapon to his body, and not to the horse, it was always at hand, and the rifleman could not be rendered 'hors de combat' in case of his horse falling or galloping off, as was often the case with dismounted dragoons and their carbines. Referring to the 1st Hants Mounted Rifles, he considered such a troop invaluable as scouts; but in proportion as they copied regular cavalry and their duties their value would decrease; and he would advise mounted Volunteer riflemen to aim not at being cavalry, but at being infantry with rapid locomotion. One advantage of the car he proposed was that it offered a much less expensive means of carrying men than mounting them on horses. Colonel Wood concluded his lecture by a tribute to the Yeomanry and Volunteer Forces. Observing that the former showed an increased disposition to act as mounted riflemen, he said the Volunteers had done more for the Regular Army than the Regular Army had been able to do for them. The Volunteers had made the military profession interesting to the public, had quickened the dormant chivalry of the nation to a livelier sense of self-reliance and self-respect, and were preparing the public mind for that liability for universal service for home defence which was inevitable. In the discussion which followed Colonel Wood's lecture, Sir Hope Grant, Colonel Bowers, Lord Westminster, Sir Thomas Acland, Lord Elcho, and others took part. There were differences of opinion as to the organisation and duties of Mounted Riflemen, but all agreed that there were strong reasons for adding such a corps to the army.

STRENGTH OF THE ARMY.—The following information is given in a return moved for by the Duke of Richmond, and issued with the Parliamentary papers:—

Number of non-commissioned officers and rank and file on			
1st January, 1872	.	.	183,620
Number of recruits joined during 1872	.	.	17,791
Number of deserters during 1872	.	.	5,861
Number of deserters rejoined during 1872	.	.	1,855
Number of men discharged during 1872:—			
By purchase	.	.	2,823
Free	.	.	840
On completion of first period	.	.	1,063
To pension	.	.	1,165
To modified pension	.	.	71
U.S. MAG., No. 533, APRIL, 1873.			N N

Medically unfit for service	3,894	
On conviction for felony	497	
As incorrigible bad characters	1,197	
Miscellaneous	52	
Total discharged	—	11,578
Number of deaths		2,549
Number of non-commissioned officers and rank-and-file on 31st December, 1872		182,568

It is explained that this return has been prepared so as to show the total number of discharges in the year 1872, hence the insertion of headings not mentioned in the address. It is, of course, to be understood that this return does not account for the total increase and decrease of the army during 1872. There are no means of separating the deserters who rejoined voluntarily from those who were arrested.

THE LATE CAPTAIN MAURY, UNITED STATES NAVY.—Among the men of science born in the United States during the present century none had made so great a reputation as Maury, and deserved so, for his "Physical Geography of the Sea" turned attention to a branch of scientific investigation which had previously been much neglected, and which is now studied with an amount of zeal and energy which gives promise of most important results. The voyage of the 'Challenger' is a consequence, and not a remote consequence, of Maury's labours. Mathew Fontaine Maury was a native of the same State which produced Washington, Jefferson, Henry, and Lee. He was always a man of studious habits and great powers of application, but it was an accident which he met with in 1839 that obliged him to quit active service. We think a serious injury caused by a fall from a coach, was the immediate reason of Maury's being obliged to exchange his duties on board ship for the scientific work at the Washington Observatory. His unrivalled powers of application and untiring perseverance were combined with rare gifts of imagination and an almost poetic style. Hence he not only collected materials with discrimination, and arranged them with critical skill, but also combined them so as to produce one of the most fascinating books in the English language. His "Physical Geography of the Sea" gave an extraordinary stimulus to the study of this department of science, Dr. Carpenter has adopted Maury's principle of oceanic circulation; while the wind and current charts have conferred practical benefits on the world which, in their ultimate results, cannot well be over-estimated. When the civil war broke out in the United States, Maury adopted the side of his State. On April 19, 1861, he resigned his appointment at the Washington Observatory, and shortly afterwards he came to England. The Russian and French Governments were rivals in their attempts to secure the services of the great American, but he remained true to the land of his birth until all hope was gone. He then joined the fortunes of the Archduke Maximilian in Mexico, and it was through Maury that the quinine-yielding cinchona tree was introduced by the ill-fated prince into the country of his adoption. During the last few years of his useful and well-spent life, Maury has occupied the position of a professor at the College of Lexington, in his native State. Though suffering from a painful illness, he laboured with as much devotion and energy during his closing years as in his prime. He has published most valuable statistics on the resources of Virginia, and has worn himself out in making long speeches in various cities of the Union, with a view to organising a system of combined meteorological reports for the benefit of farmers as well as of sailors. Maury leaves behind him many warm and attached friends, not only in America and England, but in almost every country in Europe.—

THE ARMY PURCHASE COMMISSION.—The estimate of the amount required by the Army Purchase Commissioners for the present year ending March 31,

1874 is £341,930, a net decrease of £853,490 compared with last year—exclusive, however, of the sum of £85,000 proposed to be voted as a supplementary estimate. The sub-heads under which the Commissioners will account for the vote are:—Salaries, £3280; incidental expenses, £50; compensation for sale of commissions, £820,000; compensation for the Royal (late Indian) Artillery and Engineers, £15,000; and payments to Gentlemen-at-Arms, £3,600. The supplementary vote of £8,500 which the Commissioners ask for is not, Sir Edward Lugard explains, wanted on account of any excess of expenditure over the original estimate, but for payments for which the Commissioners provided in their first estimate did not come forward until after the 31st of March, 1872, and by the present regulations the Commissioners were called upon to surrender on that day £22,926 6s 10d unexpended money in their hands. Of that sum they now desire to have Parliamentary authority for the expenditure £85,000 before March 31 next.

OBITUARY.

Captain Richard Ottley, of the Madras Staff Corps, and Adj. 2nd Cavalry, Hyderabad, Contingent, died Jan. 3, in the Red Sea, aged 33.

Captain Percy Charles du Cane, late of the 2nd Royal Dragoons, died on Jan. 19, at Brighton, aged 32.

Captain John Mush, of the 17th Foot, died on Jan. 27, at Godalming, aged 30. He entered the service, July, 1859; became Lieut., Sept., 1862; and Capt., Jan., 1871.

Captain George William Oakes, late of the Bombay Army, died on Jan. 26, at 13 Durham Terrace, Westbourne Park, W., aged 69.

Captain James Augustus Baillie, late of the 16th Lancers, died on Jan. 24, aged 75. He was present at the battle of Waterloo (medal), and served with the Army of Occupation in France.

Retired Captain Alfred J. Curtis, died in London on the 10th March, in his 55th year.

Colonel John Wilson, late of the Madras Army, died on March 17, at Gloria Lodge, Tulse Hill, Brixton, aged 82.

Colonel Henry Boye, on the Retired List of the Bombay Army, died on March 16, at Marseilles.

Colonel Brownlow William Knox, late of the Scots Fusilier Guards, died on March 14, at 28, Wilton Crescent, aged 66.

Colonel Cameron Neville Hogge, late of the Grenadier Guards, died on March 12, aged 43. He served in the Crimean campaign from March 29, 1855, including the siege and fall of Sebastopol (medal with clasp, and Turkish medal).

Colonel Richard O'Connell, on half-pay, Royal Artillery, died on March 1, at La Haye du Puits, Normandy, aged 51. He entered the

service, June, 1841; became Lieut., April, 1842; Capt., June, 1848; Major, April, 1860; Lieut.-Col., July, 1861; Col., July, 1866; and retired on half-pay, Sept., 1870.

Lieutenant-Colonel Frederick Wright, on retired full pay, Royal Artillery, died on March [13](#), at [7](#), Westbourne Villas, Bayswater, aged [81](#). He entered the service, Sept., 1805; became Lieut., June, 1806; Capt., April, 1820; Major, Jan., 1837; and Lieut.-Col., Nov., 1854. He served at the capture of Madeira in 1808, and the campaign in the Peninsula, under Sir John Moore, in 1808-9 (war medal with one clasp, for Corunna.)

Major Richard Pretyma, late of the Madras Army, died on March [7](#), at [6](#) The Crescent, Taunton, aged [73](#).

Major Joshua Edleston, on retired full pay, Royal Marines Light Infantry, died on March [18](#), at Gonville House, Cambridge.

Captain Henry Bates Leonard, on half-pay, Royal Marines, died on March [7](#), at Bandon, county Cork, aged [49](#). He entered the service, Aug., 1841; became Lieut., May, 1846; Capt., March, 1854; and retired on half-pay, Oct., 1857.

Lieutenant William Berkeley Carden, of the Royal Engineers, died on March [16](#), at Brompton Barracks, Chatham, aged [21](#). He entered the service, Nov., 1872.

Major-General Henry Bower, late of the Madras Army, died on Feb., [15](#), at Kennett House, Newbury, Berks, aged [68](#).

Colonel William James Bradford, died on Feb. [19](#), at [11](#), Norfolk Square, aged [83](#).

Lieutenant-Colonel William Williamson, late of the 85th Foot, died on Feb. [25](#), at Oakwood, Croft-upon-Tees.

Major Sir George De La Poer Beresford, Bart., late of the 7th Foot, died on Feb. [11](#), at Glasgow, aged [62](#).

Major Charles Pearce, late of the Bengal Army, died on Feb. [21](#), at Portishead, Somerset, aged [83](#).

Major Benjamin Hutchins Edwards, on retired full pay, 63rd Foot, died on Feb. [23](#), at Freshford, Bath, aged [79](#).

Captain W. L. Williams, late of the 13th Foot, died on Feb. [21](#), aged [37](#).

Captain F. W. Johnson, late of the 54th Foot, died on Feb. [29](#), at South Audley Street, Grosvenor Square.

Captain Langham Rokeby, F.R.G.S., on half-pay, Royal Marines, died on Feb. [22](#), at Cairo, aged [33](#).

Retired Admiral William Hotham, [K.H.](#) died on the 22nd Feb. at Clifton, York, in his 79th year.

Retired Commander Robert Mansel, died on Dec. [30](#), 1872, at Natal, South Africa aged [42](#).

Retired Commander Sackville W. H. Thompson died on the 20th Feb. at Sherwood Lodge, Shanklin, Isle of Wight, in his 47th year.

General Brook Brydges Parlbby, C.B., of the Madras Infantry, died on March 7, at Upper Norwood, aged 89. He entered the service, Aug., 1799; became Capt., 1804; Major, June, 1814; Lieut. Col., July, 1823; Col., June, 1829; Major Gen., June, 1838; Lieut. Gen., Nov. 1851; and Gen., Oct., 1857.

Major General Patrick Yule, on retired full pay, Royal Engineers, died on March 10, at Edinburgh. He entered the service, May, 1811; became Lieut., May, 1811; Capt., March, 1825; Major June, 1838; Lieut. Col., April, 1846; Col., June, 1854; and Major Gen., 1855. He served in Canada during the greater part of the war of 1812-14; was present at the affair of Street's Creek, and dismantled, under fire, the bridge there, by which the advance of a superior force of the enemy was retarded; was also in the actions of Chippewa (horse mortally wounded) and Lundy's Lane.

Colonel Henry Jackson, on retired full pay, late Staff Captain at Chatham, died on March 10, at Exeter, aged 65. He entered the service, April, 1831; became Lieut. Sept. 1833; Capt. Dec., 1842; Major, June, 1854; Lieut. Col. April, 1860; and Col. May, 1870.

Retired Commander Michael Turner, died on the 7th March, at Scarborough, aged 75.

Retired Commander Edward Dunsterville, died on the 11th March, at his residence, Camden Square, N.W., in his 77th year.

Retired Commander Edward Digby died on the 25th Feb. at Milford, Pembrokeshire, in his 74th year.

Admiral Robert Craigie (Reserved List) died suddenly on March 2, at Dawlish, in his 73rd year.

Lieutenant General Charles Hewetson, of the Madras Infantry, died recently in India, aged 76. He entered the service, June 1812; became Lieut. Oct. 1815; Capt. Feb. 1827; Major, Nov. 1841; Lieut. Col. Feb. 1848; Col. Nov., 1854; Major-Gen. Dec., 1859; and Lieut. Gen. June, 1870. He served at Kolapore, also in Kimerdy district in Goomsoor in 1847.

STATIONS OF THE ROYAL NAVY IN COMMISSION.

*(Corrected to March 25.)**With the Dates of Commission of the Officers in Command.*

Aboukir, 24, sc., Comdre. A. de Horsey, 1859, Jamaica	Cherub, 2, Lieut.-Com. F. C. Baker, 1861, N. America and W. Indies
Achilles, 26, Capt. R. P. Hamilton, 1856, Portland	Clio, 18, Commodore. F. H. Stirling, 1869, Australia
Agincourt, 28, Capt. Adeane, Rear-Adm. MacDonald, Channel Squadron.	Clyde, 12, Com. R. H. Boy'e, Aberdeen
Antelope, 2, Lieut.-Com. Charles S. P. Woodruffe, 1860, Constantinople	Cockatrice, 2, sc., Com. W. St. Clair, 1866, Mediterranean
Ariadne, 26, Capt. the Hon. H. Carpenter, 1866, special service	Coquette, 4, Lieut.-Com. E. D. Law, 1861, W. C. of Africa
Asia, Capt. the Lord Gilford 1859, Flag of Rear-Adml. Sir L. M'Clintock, Guard Ship of Reserve, Portsmouth	Columbine, 3, Com. E. W. Hereford, 1866, East Indies
Audacious, 14, Capt. C. W. Hope, 1861, River Humber	Cossack, 16, Capt. R. G. Douglas, 1866, Australia
Aurora, 28, Capt. S. Douglas, 1865, Detached Squadron	Crocodile, 2, Capt. G. H. Parkin, 1866, Indian Troop Service,
Avon, 4, Com. J. Patterson, 1868, China	Curlew, 3, Com. D. Boyle, 1865, China
Barrosa, 17, Capt. L. J. Moore, 1863, ordered home	Dædalus 16 Com. E. T. Parsons, 1866, Naval Reserve Drill ship, Bristol
Basilisk, 6, pad, Capt. J. Moresby, 1864, Australia	Danae, 6, sc., Capt. W. S. Brown, 1866, N. America and W. Indies
Bellerophon, 15, Capt. M'Crea, 1862, Channel Squadron	Daphne, 5, Com. R. S. Bateman, 1866, East Indies
Bittern, 3, Com. P. Stevens, W. C. of Africa	Dart, 5, Com. Denny, 1868, S. E. Coast of America
Black Prince, 28, Capt. E. Lacy, 1862, Greenock	Dasher, 2, st. ves., Capt. W. F. Johnson, 1864, Channel Islands
Blanche, 6, sc., Capt. C. H. Simpson, 1866, Australia	Decoy, 4, Lieut.-Com. J. Hext, W. C. of Africa
Boscawen, 20, Com A Markham, 1867, Training Ship, Portsmouth	Devastation, 4, Capt. W. Hewett, V.C., Portsmouth.
Boxer, 4, Lieut.-com. W. Collins, 1864, Pacific	Dido, 6, Capt. C. Chapman, 1866 Australia
Brilliant, 16, Com. W. H. Brent, 1866, Naval Reserve Drill Ship, Dundee,	Doris, 24, Capt. W. H. Edye, Detached Squadron
Britannia, 8, Cadet Training Ship. Capt. F. A. Foley, 1860, Dartmouth	Dove, 2, Lieut J. G. Jones, 1865, China
Britomart, 2, Lieut.-Com. W. Richards, N. America and West Indies.	Duke of Wellington, 23, Captain Hon. C. Glyn, 1861, Admiral Sir G. Mundy, Portsmouth
Briton, 10, Capt. Malcolm, 1866 East Indies	Durham, 20, Com. W. H. Goold, 1867, Sunderland
Cadmus. 16, Capt. W. H. Whyte, 1864, China	Druid, Capt. H. M. Nelson, 1866, West Coast of Africa
Cambridge, 20, gunnery ship, Capt. F. A. Herbert, 1864, Devonport	Dwarf, 4, sc., Commander W. Bax, 1867, China
Cameleon, 7, sc., Com. C. Mainwaring, 1867, Pacific	Eagle, 16, Com. Guy O. Twiss, 1866 Naval Reserve Drill Ship, Liverpl.
Castor, 22, Commander R. B. Nicholetts 1868, Drill Ship, North Sniels	Egmont, receiving ship, Capt. G. A. C. Brooker, 1862, Rio de Janeiro
Challenger, 2, Capt. G. Nares, Surveying Service	Elk, 4, Com. J. Barnett, 1867, China
	Endymion, 22, Capt. E. Madden, 1865, Detached Squadron
	Euphrates, 2, Capt G. C. T. D'A Irvine, 1867, Troop service
	Excellent, gunnery ship, Capt. H. Boys, 1857, Portsmouth

- Favourite**, 10, Captain L. Somerset, Queensferry
Fawn, 15, Com. H. P. Knevitt, 1866, Pacific
Fisgard, 42, Staff-Com. F. Inglis, 1857, Greenwich
Flora, 10, Com. F. Thomson, 1864, Simon's Bay
Fly, 4, Com. T. T. Phillips, 1864, N. America and W. Indies
Fox, 2, sc. store ship, Staff-commander S. Braddon, 1866, store service
Frolic, 4, Com C. Buckle, 1866, China.
Ganges, 20, training ship, Com. A. R. Tinklar, 1867, Falmouth
Glasgow, 28, Capt. H. Fairfax, 1866, Rear-Adm. A. Cumming, E. Indies
Growler, 4, Com. E. H. Verney, 1866, Mediterranean
Hart, 4, Commander P. H. Royse, 1865, Mediterranean
Hector, 20, Capt. T. Cochrane, 1857, Southampton Water
Helicon, Lieut.-Com. F. Rougemont 1864, special service
Hercules, 12, Capt. W. Dowell, 1858, Channel Squadron
Hibernia, receiving ship, Com. E. D. P. Downes, 1864, Rear Adm. E. Inglefield, Malta
Himalaya, 4, Capt. W. Grant, 1867, troop service
Hornet, 4, Com. O. Cameron, 1868, China
Immortalité, 28, Capt. Mc. L. Lyons, 1862, detached squadron.
Implacable, 24, Com. A. H. Kennedy, 1866, Training Ship, Devonport
Impregnable, 78, Capt. J. C. Wilson, 1865, Training Ship, Devonport
Indus, Capt. C. Fellowes, 1858, Rear Admiral Sir W. Hall, Devonport
Invincible, 14, Capt., Soady, 1865, Mediterranean
Iron Duke, 14, sc., Capt. W. Arthur, 1867, Rear-Adm. Shadwell, China
Jackal, 2, st. ves., Lieut.-com. H. P. Clanchy, 1861, Coast of Scotland
Jumna, 2, Capt. F. W. Richards, 1866, troop service
Juno, 6, Capt. J. K. E. Baird, 1864, ordered home
Kestrel, 4, Com. W. Boulton, East Indies
Leven, 3, Lieut.-com. A. W. Whish, 1864, China
Lively, 2, Com. E. Wilhinson, Channel Squadron
Lord Warden, sc., 18, Capt. T. Brandreth, 1863, Vice-Adm. Sir Hastings R. Yelverton, K.C.B., Mediterranean
Lynx, 4, Com. J. S. Keats, 1866, East India station
Magpie, 3, gunboat, Com. P. Doughty, 1866, East Indies
Malabar, 3, Captain T. B. Sullivan India Troop Service
Martin, 10, Lieut.-Com. C. Gordon, Portsmouth
Merlin, 4, Lieut.-Com. E. Day, W. C. of Africa
Midge, 4, Com. C. C. Rising, 1865, China
Minstrel, 2, Lieut.-Com. W. Patsons, 1861, North America and W. Indies
Minotaur, 34, Capt. R. Fitzroy, 1872, Rear-adm. G. T. Phipps-Hornby, Channel Squadron
Mosquito, 4, Lieut.-Com. W. Bond, Devonport
Myrmidon, 4, Com. R. Hare, Sheerness
Nankin, 50, Capt. R. Courtenay, 1859, Pembroke
Narcissus, 35, screw, Capt. J. Hopkins, 1867, Rear-adm. F. Campbell, C.B., Detached Squadron
Nassau, 5, Com. W. Chimmo, 1864, ordered home
Nereus, 6, store depot, Staff-com. W. Sharp, 1867, Valparaiso
Nimble, 5, Com. R. Harrington, East Indies
Niohe, 4, Com. Sir L. Loraine, Bart., 1867, North America and W. Indies
Northumberland, 26, sc., Capt. J. H. Alexander, C.B., 1863, Channel Squadron
Opossum, 2, Lieut. H. Fairlie, 1864, Amoy
Orontes, 2, Capt. J. L. Perry, 1867, troop service
Orwell, 2, Lieut.-Com. F. Dent, 1860, Queenstown
Pallas, 8, Capt. C. J. Rowley, 1866, Malta
Pembroke, 25, sc. Captain G. W. Watson, 1864, Vice-adm. C. G. J. B. Elliot, C.B., Sheerness.
Penelope, 10, Capt. C. Wake, 1859, Harwich
Pert, 4, Com. C. G. Jones, 1865, Brazil.
Peterel, 3, Com. C. G. Stanley, 1867, Pacific
Pheasant, 2, Lieut.-Com. G. Allen, 1863, Gibraltar
Pigeon, 2, Lieut.-Com. G. Trotter, 1863, Mediterranean
Pioneer, 2, Lieut.-Com. T. H. Larcon, 1863, W. C. of Africa
Plover, 3, Com. H. N. Hippisley, 1866, N. America and West Indies
President, 16, Com. J. B. Scott, 1861, Naval Reserve Drill Ship, City Canal
Princess Charlotte, 12, Comdre. F. H. Shortt, 1858, Receiving Ship, Hong Kong

- Pylades, 17, Capt. A. C. Strode, 1863,
S. E. America
 Racoon, 22, sc., Capt. E. H. Howard,
1864, North America and West
Indies
 Rattlesnake, 17, Com. J. E. Commerell,
C.B., 1859, W. C. of Africa
 Rapid, 3, Com. Hon. V. A. Montagu,
1867, Mediterranean
 Reindeer, 7, Captain Kennedy, 1867,
Pacific
 Repulse, 12, Capt. C. T. Curme, Rear-
Admiral C. F. Hillyar, Pacific
 Research, 4, Capt. C. Buckle, 1864,
Mediterranean
 Resistance, 16, Capt. J. E. Montgomerie,
1862, Birkenhead
 Revenge, Capt. B. S. Pickard, 1865,
Rear-adm. Heathcote, Queenstown
 Rinaldo, 7, Com. George Parsons,
1865, China
 Ringdove, 3, Com. T. M. Maquay,
1867, China
 Rocket, 4, Com. A. R. Wright, 1864,
South East America
 Rosario, 3, sc., Com. H. J. Challis,
1865, Australia
 Royal Adelaide, 26, Capt. A. Heneage,
1862, Adml. Sir H. Keppel, K.C.B.,
Devonport
 Royal Alfred, 18, sc., Capt. Henry F.
Nicholson, 1866, Vice-Admiral E.
Fanshawe, K.C.B., North America
and West Indies
 Salamander, 2, Staff-Com. J. Kiddle,
1865, Channel Squadron
 Salamis, 2, st. ves. Lieut.-Com. Little-
ton, 1861, China
 Scout, 21, Capt. R. P. Cator, 1866,
Pacific
 Scylla, 16, Capt. C. R. Boxer, 1866,
ordered home
 Seagull, 3, Commander Stubbs, 1865,
West Indies
 Serapis, 2, Capt. H. D. Grant, 1864,
Indian troop service.
 Sirius, 6, Capt. David Miller, 1863,
North America
 Spartan, 8, Capt. J. S. Hudson, 1866,
N. America and W. Indies
 Sphinx, 6, Capt. H. B. Phillimore,
C.B., 1864, N. America and W.
Indies
 St. Vincent, 26, Training Ship, Com. H.
Hand, 1867, Portsmouth
 Sultan, 12, Capt. E. W. Vansittart
C.B., 1856 Channel Squadron
 Supply, 5, Staff com. R. Pearce, 1867,
W. C. of Africa
 Swallow, 3, Com. W. Silverlock, 1865,
N. A. and W. Indies
 Swiftsure, 14, Capt. W. Ward, 1864,
Mediterranean
 Sylvia, 5, Com. H. C. St. John, 1866,
ordered home
 Tamar, 2, Capt. W. J. Grubbe, 1866,
Troop Service
 Teazer, 4, Com. J. Fitzmaurice, 1866,
China
 Tenedos, 8, Capt. E. H. Ray, Pacific
 Terror, 16, sc. Capt. E. D'O. D'A.
Aplin, 1861, Bermuda
 Thalia, 6, Capt. H. Woolcombe, 1866,
China
 Thetis, 13, Cap. T. Le H. Ward,
China
 Thistle, 4, Com. H. Leet, 1866, China
 Topaze, 31, Capt. E. Hardinge, 1865,
Detached Squadron
 Torch, 5, sc., Com. H. N. Dyer, 1866,
Mediterranean
 Trincomalee, 16, Com. R. Kinahan 1866,
Naval Reserve, West Hartlepool,
 Valiant, 24, Captain N. Bedingfield,
1862, River Shannon.
 Valorous, 12, Captain A. Thrupp,
1865, Portsmouth
 Vanguard, 14, Capt. D. Spain, 1862,
Kingstown
 Victoria and Albert, steam yacht, Capt.
H.S.H Prince Leiningen, G.C.B.,
1860
 Vulture, 3, Com. R. Cay, 1866 E Indies
 Wizard, 2, Lieut.-com. H. Edwards,
1861, Mediterranean
 Wolverine, 17, Capt. H. B. Wratislaw,
1865, East Indies
 Woodlark, 3, Com. J. F. Luttrell, 1865,
N. America and W. Indies
 Zealous, 20, ironclad, Capt. F. A. Hume,
1865, Flag of Rear Admiral A.
Farquhar, Passage home
 Zebra, 7, Com. Hon. A. D. S. Denison
1866, China

STATIONS OF THE BRITISH ARMY.

The numbers placed after the station indicate the regiment to which the Depot companies are attached.

1st Life Guards—Regent's Park	8th do. (1st bat.)—Bengal, (2nd bat.)
2nd do.—Hyde Park	Do. (2nd bat.) Preston
Royal Horse Guards—Windsor	9th do. (1st bat.)—Guernsey
1st Dragoon Guards—Dublin	Do. (2nd bat.)—Shorncliffe
2nd do.—Brighton	10th do. (1st bat.)—Singapore (Depot bat.)
3rd do.—Maidstone	Do. (2nd bat.)—Chatham (depot bat.)
4th do.—Dundalk	11th do. (1st bat.)—Bengal, (2nd bat.)
5th do.—Manchester	Do. (2nd bat.) Glasgow
6th do.—Aldershot	12th do. (1st bat.)—Athlone
7th do.—Norwich	Do. (2nd bat.)—Bengal, (1st bat.)
1st Dragoons.—Dublin	13th do. (1st bat.) Malta, (2nd bat.)
2nd do.—Edinburgh	Do. (2nd bat.)—Dublin
3rd Hussars—Bombay, Canterbury	14th do. (1st bat.)—Bengal, (2nd bat.)
4th do.—Bengal, do.	Do. (2nd bat.)—Chester
5th Lancers—Bengal, do.	15th do. (1st bat.)—Cork
6th Dragoons—Cahir	15th do. (2nd bat.)—Gosport
7th Hussars—Hounslow	16th do. (1st bat.)—Jersey
8th do.—Longford	Do. (2nd bat.)—Aldershot
9th Lancers—Woolwich	17th do. (1st bat.)—Bengal, (2nd bat.)
10th Hussars—Bombay, Canterbury	Do. (2nd bat.)—Devonport
11th Hussars—Bengal, Canterbury	18th do. (1st bat.)—Malta (2nd bat.)
12th Lancers—Leeds	Do. (2nd bat.)—Aldershot
13th Hussars—Aldershot	19th do. (1st bat.)—Gosport Forts
14th do.—Newbridge	Do. (2nd bat.)—Bengal, (1st bat.)
15th Hussars—Bengal, Canterbury	20th do. (1st bat.)—
16th Lancers—Madras, do.	Do. (2nd bat.)—Buttevant
17th do.—Ballincollig	21st do. (1st bat.)—Madras, (2nd bat. 21st)
18th Hussars—Madras, Canterbury	Do. (2nd bat.)—Stirling
19th do.—Aldershot	22nd do. (1st bat.)—Aldershot
20th do.—Colchester	Do. (2nd bat.)—Fermoy
21st do.—Bengal, Canterbury	23rd do. (1st bat.)—Pembroke
Grenadier Guards (1st bat.)—Wellington Barracks	Do. (2nd bat.)—Mullingar
Do.—(2nd bat.)—Tower	24th do. (1st bat.)—Gibraltar (2nd bat.)
Do.—(3rd bat.)—Chelsea Barracks	Do. (2nd bat.)—Warley
Coldstream Gds. (1st bat.)—Wellington Barracks	25th do. (1st bat.)—Curragh
Do.—(2nd bat.)—Dublin	Do. (2nd bat.)—Bengal, (1st bat.)
Scots Fusilier Gds. (1st bat.)—Chelsea	26th do.—Bengal, (99th)
Do.—(2nd bat.)—Tower	27th do.—Gosport
1st Foot (1st bat.)—Aldershot	28th do.—Malta (94th)
Do.—(2nd bat.)—Bengal, (1st bat. 1st)	29th do.—Barbadoes, (77th)
2nd do. (1st bat.)—Bombay, (2nd bat.)	30th do.—Aldershot
Do. (2nd bat.)—Devonport	31st do.—Gibraltar, (101st)
3rd do. (1st bat.)—Bengal, (2nd bat.)	32nd do.—Cape of Good Hope (90th)
Do. (2nd bat.)—Dover	33rd do.—Colchester
4th do. (1st bat.)—Portsmouth	34th do.—Curragh
Do. (2nd bat.)—Woolwich	35th do.—Sheffield
5th Foot (1st bat.)—Bengal, (2nd bat.)	36th do.—Bengal, (1st bat. 23rd)
Do. (2nd bat.)—Kilkenny	37th Foot—Bengal, (104th)
6th do. (1st bat.)—Bengal, (2nd bat.)	38th do.—Dover
Do. (2nd bat.)—Curragh	39th do.—Bengal, (depot bat.)
7th do. (1st bat.)—Aldershot	40th do.—Bengal (2nd bat. 8th)
Do. (2nd bat.)—Cork	41st do.—Bengal, (1st bat. 23rd)
	42nd do.—Devonport

43rd do.—Madras (2nd bat. 7th)	79th do.—Parkhurst. (103rd)
44th do.—Madras (depot bat.)	80th do.—Hong Kong (2nd bat. 20th)
45th do.—Madras, (94th)	81st do.—Gibraltar (27th)
46th do.—Aldershot	82nd do.—Chatham
47th do.—Fleetwood	83rd do.—Bombay (depot bat.)
48th do.—Madras, (depot bat.)	84th do.—Curragh
49th do.—Bombay, (95th)	85th do.—Bengal, (31th)
50th do.—Colchester	86th do.—Cape, (61st)
51st do.—Bengal (50th)	87th do.—Nova Scotia, (1st bat. 12th)
52nd do.—Malta, (103rd)	88th do.—Aldershot
53rd do.—Bermuda, (33rd)	89th do.—Madras, (2nd bat. 22nd)
54th do.—Bengal (depot bat.)	90th do.—Aldershot
55th do.—Bengal, (47th)	91st do.—Fort George
56th do.—Bombay (33rd)	92nd do.—Bengal, (91st)
57th do.—Kinsale	93rd do.—Edinburgh
58th do.—Bengal (88th)	94th do.—Newport
59th do.—Bombay, (47th)	95th do.—Aldershot
60th do. (1st bat.) Nova Scotia (4th bat.)	96th do.—Bengal (101st)
Do. (2nd bat.)—Bengal, do.	97th do.—Dublin
Do. (3rd bat.)—Shorncliffe do.	98th do.—Templemore
Do. (4th bat.)—Winchester	99th do.—Shorncliffe
61st do.—Enniskillen	100th do.—Portsmouth Hill Forts
62nd do.—Bengal, (2nd bat. 17th)	101st do.—Manchester
63rd do.—Bengal (Depot Bat.)	102nd do.—Parkhurst
64th do.—Limerick	103rd do.—Aldershot
65th do.—Bengal (84th)	104th do.—Portsmouth
66th do.—Bombay, (46th)	105th do.—Bengal, (50th)
67th do.—Burmah (1st bat. 4th)	106th do.—Bengal, 35th)
68th do.—Bombay (35th)	107th do.—Madras, (104th)
69th do.—Bermuda, (Chatham)	108th do.—Bombay, (97th)
70th do.—Bengal (100th)	109th do.—Bengal, (2nd bat. 20th)
71st do.—Gibraltar, (Fort George)	Rifle Brigade (1st bat.)—Dover
72nd do.—Bengal ditto	Do. (2nd bat.)—Birr
73rd do.—Ceylon, (35th)	Do. (3rd bat.)—Portsmouth
74th do.—Malta, (42nd)	Do. (4th bat.)—Dublin
75th do.—Cape of Good Hope, (57th)	1st West India Regiment—Jamaica
76th do.—Madras, (depot bat.)	2nd do.—Demerara
77th do.—Portland	Ceylon Rifle Regiment—Ceylon & China
78th do.—Belfast	Royal Malta Fencible Artillery—Malta

Depot Battalion, Chatham.

PROMOTIONS AND APPOINTMENTS.

NAVY.

Admiralty, Feb. 20.

Her Majesty has been graciously pleased to appoint Admiral Sir J. Hope, G.C.B., to be her Majesty's First and Principal Naval Aide-de-Camp, vice Admiral the Right Hon. the Earl of Lauderdale, K.C.B., placed on the Retired List on the 8th inst.; and Capts. F. H. Stirling and C. W. Hope to be aides-de-camp, vice the Hon F. Egerton and E. B. Rice, promoted to be rear admirals on the 8th and 12th inst. respectively.

Feb. 22.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Lieut. S. Gassiot has this day been placed on the Retired List, with permission to assume the rank of retired commander.

Feb. 26.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Capt. W. H. Fenwick has been placed on the Retired List of his rank from the 21st inst. Lieut. S. A. Roberts has this day been placed on the Retired List of his rank.

Feb. 27.

G. Raymond, Esq., has this day been promoted to the rank of staff capt. in her Majesty's Fleet.

March 3.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Assist. Paymaster H. H. S. Andrews has been placed on the Retired List from the 28th ult.

March 4.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Lieut. B. J.

sions of Her Majesty's Order in Council of 1860, 1864, and 1866, the undermentioned officer, having attained fifteen years' seniority as Commander, has been allowed to assume the rank and title of retired capt. from the 26th ult.:—Com. the Right Hon. W. Bernard, Lord de Blaquiere.

March 11.

E. W. Creak, Esq., has this day been promoted to the rank of staff com. in her Majesty's Fleet, with seniority of Feb. 23, 1873.

The undermentioned officers have this day been promoted to the rank of surgeon in her Majesty's Fleet: T. Kipling, S. Bamfield, T. Cann, M.D.

March 12.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Lieut. J. G. Y. Holbrook has been this day placed on the Retired List, with permission to assume the rank of retired com.; Assist. Paymaster T. E. Goodwin has this day been placed on the Retired List.

March 13.

Sub Lieut. G. W. Russell has been promoted to the rank of lieutenant in her Majesty's Fleet, with seniority of Jan. 19 (confirming a commission given by Vice Admiral C. F. A. Shadwell, C.B., Commander-in-Chief of her Majesty's ships and vessels on the China station, in the death vacancy of Lieut. E. C. Abbs).

March 14.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Lieut. B. J.

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S. O. Carter has this day been placed on the Retired List of his rank.

In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Lieut. J. F. Baker has been this day placed on the Retired List, with permission to assume the rank of retired com.

In accordance with the provisions of Her Majesty's Order in Council of Feb. 22, 1870, Assistant Surg. J. M'Carthy has been placed on the Retired List from the 10th inst.

March 19.

F. J. Ray, Esq., has this day been promoted to the rank of staff com., with seniority of the 8th inst.

Captains—John D. M'Crea, of Bellerophon, to Triumph; Edmund R. Fremantle, to Barracouta.

Staff Captains—George A. Waters, from Malta to Sheerness Dockyard; George Raymond, to Malta Dockyard, vice Waters.

Commanders—O. S. Cameron, to Hornet, vice Osborn, invalided; Robert M. Gillson, to Rifleman; John Ingles, to Triumph, Robert Pitman, to Ringdove, vice Maquay, invalided; John L. Way, to Iron Duke; Edmund J. Church, to Curlew, vice Boyle, invalided; the Hon. A. D. S. Denison, to Adventure, from Zebra.

Staff Commander—John F. R. Aylen, to Asia, vice Raymond, promoted.

Lieutenants—William C. J. Blount, to Favorite; St. Vincent Nepean, to Devastation (for gunnery duties); Adolphus F. St. Clair, to Cambridge, as junior staff officer, vice Nepean; Harry F. Yeatman, to Pembroke (additional, for Naval Reserve); L. N. Moncrieff, to Favorite; Reginald N. Custance, to Excellent; C. T. F. Hodgkinson, to Pembroke; James W. Gambier, to Asia; E. Chichester, to Torch; Edmund F. Jefferies, to Excellent (additional); Charles C. Drury, to Iron Duke, as staff officer, from Excellent; T.

E. Maxwell, and Lewis F. Wells, to Barracouta; E. B. Fletcher, to Excellent.

Navigating Lieutenants—W. H. Hayward, to Invincible; Edmond C. Smith, to Pembroke, for Encounter; Albert R. Wonham, to Barracouta.

Sub Lieutenants—Arthur Furlonger, Richard W. O. Voysey, and Richard G. Day, to Black Prince (as supernumeraries); F. A. Brookes, Charles H. Cochran, Conyers Lang, and the Hon. Harry de V. Pery, to Barracouta; William M. Maturin, to Iron Duke; Arthur T. S. Carter, to Pembroke; Henry G. Grey, to Rifleman; Lloyd F. Mathews, to Duke of Wellington.

Navigating Sub Lieutenants—Charles F. Barnard, to Rifleman; William Way, to Himalaya, from Valorous.

Midshipmen—William L. Down, Montague H. M. Gruggen, A. W. Pym, Henry Preeedy, George H. Miller, and William W. Smythe, to Triumph; Montague R. Hayes, Augustus L. Knapton, Francis G. Kirby, Codrington P. Bickford, George F. S. Knowling, and L. F. C. Jackson, to Minotaur.

Navigating Midshipmen—Henry W. Steele, to Northumberland; H. Baker, to Minotaur; William B. Fawckner, to Agincourt; Frank J. Harwood, to Valorous; George H. King, to Barracouta.

Staff Surgeon—Michael Walling, M.D., to Resistance.

Surgeon—Robert Edwardes, to Barracouta.

Assistant Surgeons—Lewis Edwards, M.B., to Excellent; John Allen, to Valiant; John O'Neill, M.D., to Achilles; George Kell, to Rifleman; John Wood to Barracouta; John Rogers to Fox.

Assistant Paymasters—John H. Boulton, to Pembroke; William B. Jennis, to Duke of Wellington; Edmund Hickson, to Barracouta.

Assistant Paymaster in Charge—Charles Farwell, to Rifleman.

Chief Engineers—Edward Ingle-

dew, to Barracouta; John T. Harris, to Salamis.

Engineers—Richard H. Trubshaw, and William Gentle, to Rifleman; Henry G. Cocking, to Barracouta; William Todner, to Pembroke, for service in Philomel; Isaac A. Liddell, to Asia, for service in Monarch; William Inglis (b), and William Hankinson, to Barracouta; William Nicklin, to

Triumph; James Campbell, to Black Prince; William A. Betts, to Asia, for service in Pearl.

Assistant Engineers — Second Class : Richard T. Serle, to Indus; William Scotten, to Rattlesnake (additional); William Cook (acting), to Druid, (additional); William Bromley (acting), to Rifleman.

ARMY.

THE ARMY GAZETTE.

War Office, Pall Mall, Feb. 25.

103rd Foot—Sir W. Wyllie, from the 109th Foot, to be col., vice Lieut. Gen. J. Hale, deceased; Feb. 14, 1873.

109th Foot—Lieut. Gen. M. K. Atherley to be col., vice Gen. Sir W. Wyllie, removed to the 103rd Foot; Feb. 14, 1873.

Brigade Depôts.

To be lieut. cols., dated April 1, 1873—Lieut. Colonels and Brevet Cols. C. J. C. Mills, from half pay, late 94th Foot; J. J. Hort, from half pay, late 44th Foot; R. W. Lacy, from half pay, late 56th Foot; J. E. Thackwell, C.B., from half pay, late 22nd Foot; J. E. Collings, C.B., from half pay, late 33rd Foot; H. Hamilton, C.B., from half pay, late 78th Foot; F. R. Elrington, from half pay, late Rifle Brigade; E. W. D. Bell, V.C., C.B., from half pay, late 23rd Foot; R. L. Ross, C.B., from half pay, late 93rd Foot; E. Wodehouse, from half pay, late 24th Foot; W. Gordon, C.B., from half pay, late Recruiting District, and Assist. Adjt. Gen., North Britain; A. Scudamore, C.B., from half pay, late 7th Hussars; R. W. M. Fraser, from half pay, late Depôt Batn., and Assist. Adjt. Gen. North Britain; G. W. P. Bingham, C.B., from half pay, 64th Foot; W. Hope, C.B., from half pay, late 71st Foot; T. E. Knox, C.B., from half pay, late 9th Foot; E. W. Donovan, from half pay, late 100th Foot; D. Anderson, from half pay, late 22nd Foot; F. G. Wilkinson, from half pay, late Depôt Batn., and Assist. Adjt. Gen. Eastern District; H. M. Hamilton from 12th Foot; W. A. Stratton, from half pay, late 6th Foot; A. A. Chapman, from half pay, late 18th Foot; B. O'Brien, from half pay, late Military Train; J. W. Thomas, C.B., from half pay, late 67th Foot; W. Wilby, C.B., from 4th Foot; H. H. Greer, C.B., from

half pay, late 68th Foot; T. Lightfoot, C.B., from half pay, late 84th Foot; H. D'O. Torrens, C.B., from half pay, late 23rd Foot; J. N. Sargent, C.B., from half pay, late 3rd Foot; E. Seager, from half pay, late 8th Hussars; W. H. Kirby, from half pay, late 94th Foot; J. R. S. Sayer, C.B., from half pay, late Cavalry Depôt; J. B. Spurgin, C.B., C.S.I., from half pay, 102nd Foot; F. Carey from half pay, late 26th Foot; J. C. H. Jones, from half pay, late Depôt Batn., and Assist. Adjt. Gen., Northern District; E. T. Gloster, from 97th Foot; J. G. R. Aplin, from half pay, late 48th Foot; E. G. Bulwer, C.B., from half pay, late 23rd Foot; W. Hardy, C.B., from half pay, late Discharge Depôt; the Hon. J. J. Bourse, from half pay, late Depôt Batn.; and Assistant Adjt. Gen. Western District; A. B. Hankey, from half pay, late 83rd Foot; E. Newdigate, from half pay, late Depôt Batn.; R. J. Fielden, C.M.G., from half pay, late 60th Foot; J. Gubbins, from half pay, late 23rd Foot; E. S. F. G. Dawson, from 90th Foot; W. Rickman, from Depôt Batn.; G. Mein, from half pay, late Depôt Batn.; F. G. Hibbert, from half pay, late Royal Canadian Rifle Regt.; L. E. Knight, from half pay, late Cape Mounted Riflemen; H. H. Morant, from half pay, late 68th Foot; T. C. Lyons, from half pay, late 87th Foot; J. Nason, from half pay, late Depôt Batn., and Assist. Adjt. Gen. Northern District; G. H. Page, from half pay, late 41st Foot; P. Bayly, from half pay, late 30th Foot; H. W. Parish, C.B., from 45th Foot.

Where not otherwise specified the following commissions and announcements bear date Feb. 26, 1873:—

1st Dragoons—Lieutenant J. A. Middleton resigns his commission as adjt.

Coldstream Guards—Lieut. and Capt. W. P. Hughes has been permitted to assume the surname of Otway in lieu of that of Hughes.

2nd Foot—Qrmr. W. Mackie retires upon half pay.

6th Foot—Lieut. J. Lewis to be adjt., vice Lieut. H. Kitchener, promoted.

13th Foot—Lieut. T. B. George retires from the service, receiving the value of his commission.

17th Foot—Lieut. E. J. Harris to be capt., vice Mush, deceased; Jan. 28, 1873.

18th Foot—Paymr. and Hon. Major G. C. Gooch retires upon temporary half pay; April 1, 1873.

20th Foot—Phillip F. Tallents, gent., to be sub lieut., in succession to Lieut. F. W. Barlow, promoted.

23rd Foot—Capt. A. M. Molyneux retires from the service, receiving the value of his commission.

24th Foot—Lieut. E. Frederick, Lord Gifford, from 83rd Foot, to be lieut., vice Wilkinson, who exchanges; Nevill Josiah Aylmer Coghill, gent., to be sub lieut., in succession to Lieut. Toler, retired.

25th Foot—Capt. H. R. Floyd retires from the service, receiving the value of his commission.

30th Foot—Capt. C. H. Garnett retires from the service, receiving the value of his commission.

31st Foot—Sub Lieut. C. G. H. Newington to be lieut.; Dec. 30, 1871.

35th Foot—Arthur Cecil Hervey Bathurst, gent., to be sub lieut., in succession to Lieut. Cavendish, retired.

36th Foot—Lieut. A. P. Thornton receives the value of an ensigncy on final transfer to the Indian Staff Corps.

43rd Foot—Sub Lieut. P. T. Rivett-Carnac, from 61st Foot, to be sub lieut., in succession to Colthurst, retired.

52nd Foot—Sub Lieut. T. G. Dundas to be lieut.; Dec. 17, 1872.

56th Foot—Sub Lieut. A. Smith to be lieut.; Dec. 30, 1871. Sub Lieut. A. Pringle, from 1st Dragoons, to be sub lieut., in succes-

sion to Lieut. Knox, retired.

57th Foot—David Farhill St. Clair, gent., to be sub lieut.; in succession to Lieut. Smith, promoted in 97th Foot.

60th Foot—Capt. A. Carlisle retires from the service, receiving the value of his commission. Sub Lieut. H. R. Mends to be lieut.; Dec. 30, 1871.

61st Foot—Lieut. F. J. Curtin to be adjt., vice Lieut. Stewart, promoted.

65th Foot—Capt. R. Murray retires from the service, receiving the value of his commission.

72nd Foot—Lieut. H. Musgrave retires from the service, receiving the value of his commission.

81st Foot—Sub Lieut. W. S. Morrice to be lieut.; Dec. 30, 1871.

83rd Foot—Lieut. C. S. Wilkinson, from 24th Foot to be lieut., vice Lord Gifford, who exchanges.

85th Foot—Staff Assist. Surg. T. G. Bolster. M.D., to be assist. surg., vice C. F. Richards, M.B., appointed to the Staff.

87th Foot—Staff Surg. P. B. Smith, M.D., to be surg., vice Surg. Major F. Douglas, deceased.

91st Foot—Freville Cookson, gent., to be sub lieut., vice H. S. Severne, transferred to the 67th Foot.

97th Foot—Herbert Duncan Armstrong, gent., to be sub lieut., vice G. C. Johnson, transferred to the 99th Foot.

98th Foot—Lieutenant A. H. Hornsby retires from the service.

101st Foot—Lieut. C. E. Hurst retires from the service, receiving the value of his commission.

107th Foot—Sub Lieut. W. J. Hume to be lieut., from Dec. 30, 1871, but his commission as Lieut. in the Army to bear date of Oct. 28, 1871.

108th Foot—The undermentioned Sub Lieuts. to be lieuts.; —P. E. Henderson, Oct. 28, 1871; W. G. Dunsford, Oct. 28, 1871; A. Wapshare, Dec. 30, 1871, but his commission as Lieut. in the Army to bear the date of Oct. 28, 1871.

Rifle Brigade—Major J. Brett retires upon full pay.

Control Department—Assistant Controller W. M. Rogers to retired pay on account of ill-health; Feb. 1, 1873.

Medical Department—For Local Dep. Insp. Gen. of Hospitals W. C. Maclean, M.D., C.B., late of the Madras Medical Service, to be local insp. gen. of hospitals, for duty at Netley, whilst employed as Professor of Medicines at the Army Medical School, dated Feb. 1, 1873, read &c., &c., as Professor of Military Medicine at the Army Medical School. Assistant Surgeon C. F. Richards, M.B., from 85th Foot, to be staff assist. surg., vice T. G. Bolster, M.D., appointed to the 85th Foot; Staff Assist. Surg. J. H. H. Tethill retires upon temporary half-pay; Jan, 26, 1873.

Brevet.

Brevet Lieut. Col. J. Davis, 20th Foot, having completed the qualifying service with the rank of Lieut. Col., to be col.; Feb. 15, 1873. Major J. Brett retired on full pay from the Rifle Brigade, to have the honorary rank of lieut. col.

The undermentioned officers to have the honorary rank of Capt.:—Paymr. H. W. Fielden, 4th Foot; Feb. 1, 1873. Qrmr. W. Mackie, retired on half pay, late 2nd Foot.

Memoranda.

The undermentioned officers receiving the value of their commissions, viz.:—Major W. J. Ross, half pay, late 1st West India Regiment; Major W. Wood, half pay, late Dépôt Batn.; Captain W. J. Wyatt, half pay, late Cape Mounted Riflemen; Capt. G. F. O'Grady, half pay, late 66th Foot; Lieut. C. H. Moore, half pay, late Royal Canadian Rifle Regiment.

War Office, Pall Mall, Feb. 28.

To be inspecting officers of Yeomanry Cavalry in Great Britain—Lieut. Col. and Brevet Col. C. J. Foster, from half pay, late 16th Lancers, April 1, 1873; Lieut. Col. and Brevet Col. T. G. A. Oakes, C.B., from half pay, late 12th Lancers, April 1, 1873.

Brigade Depôts.

To be lieut. cols., dated April 1, 1873—Lieut. Cols. and Brevet Cols.

R. Y. Shipley, C.B., from half pay, late 7th Foot; F. Peyton, from 98th Foot; G. W. T. Rich, C.B., from half pay, late 71st Foot; W. Drysdale, C.B., from half pay, late 9th Lancers; R. White, from half pay, late 17th Lancers; J. de M. M. Prior, from half pay, late 6th Dragoons; G. G. C. Stapylton, from half pay, late 32nd Foot; A. H. L. Fox, from half pay, late Grenadier Guards; L. Farrington, from half pay, late 29th Foot; A. R. Harene, from 53rd Foot; G. B. Harman, from half pay, late 34th Foot.

India Office, Feb. 27.

Her Majesty has been pleased to approve of the following appointments to her Majesty's Indian Medical service:—

To be assist. surgs., dated Oct. 1, 1872.—Bengal—Samuel Brereton, Matthew Denis Moriarty, M.B.; Gordon Price, M.D.; Edward Bovill, M.B.; Bartholomew O'Brien, M.D.; George A. Dundas, Henry Walter Hill, M.B.; Zainoor Allee Ahmed, M.B.; William A. Gilligan, and William E. Griffiths. Madras—Edward Levinge, A. N. Rogers Harrison, Lionel Beech, Daniel Henry Cullimore, and H. Plunkett Esmonde White.

THE MILITIA GAZETTE.

War Office, Feb. 25.

Where not otherwise specified, the following commissions and announcements bear date Feb. 26, 1873:—

Cambridge—Capt. H. F. Eaton resigns commission.

2nd or South Devon—Charles Edward Francis Lowe, gent., to be lieut. Edward Henry Baines, gent., to be lieut. (supy.).

Dorset—Lieut. S. J. Hornsby to be capt., vice Hall, promoted.

Royal Glamorgan Artillery—Capt. F. L. G. Little, Royal Artillery, to be adjt., vice Young, placed on a retired allowance; Feb. 19, 1873. Adjt. Little to serve with the rank of capt.

3rd Royal Lancashire—Capt. F. Silvester to be major, vice Fielden, resigned.

5th Royal Lancashire—Lieut. A. W. Garston resigns.

Leicester—Reginald B. Brett, gent., to be lieut. (supy.).

2nd Middlesex or Edmonton Royal Rifle Regiment—Richard F. Sutton, gent., to be lieut. (supy.). Edward Harrisson Richards, gent., to be lieut. (supy.).

Northumberland Artillery—Captain M. E. Leadbitter resigns. Lieut. O. C. Edwards to be capt. vice Leadbitter.

West Suffolk—Augustus Noel Campbell Hemsworth, gent., to be lieut. (supy.).

Royal Westmoreland—Lieuts. J. Harrison and A. Lumb resign commissions.

East York—Capts. C. J. Lynch and J. Bolland are permitted to retain their rank, and to wear the uniform of the regiment on retirement.

1st West York—Charles Joseph Tyas, gent., to be lieut.

4th West York—William Cumming, late Capt. 48th Foot, to be capt., vice Hartley, promoted.

6th West York—Lieut. W. F. Swindell resigns.

The Edinburgh or Queen's Regiment of Light Infantry—Capt. T. H. Ferrier resigns commission.

West Cork Artillery—Lieuts. T. A. Lunham and F. W. Woodley to be capt.

Donegal Artillery—Robert S. Stewart, gent., to be lieut.

Dublin County—Lieut. F. Pilkington resigns commission.

Galway—John Hawley Burke, gent., to be lieut.

Leitrim—Surg. A. G. Thompson resigns commission. William H. Franklin, gent., from the North Mayo Militia, to be surg., vice Thompson.

Limerick County—Lieut. G. D. Shelton resigns.

North Mayo—Surgeon W. H. Franklin resigns; Arthur Goff Thompson, gent., from the Leitrim Militia, to be surg., vice Franklin.

Monaghan—Robert Nassau A. Flanagan, gent., to be lieut.

Roscommon—Capt. C. F. Mulloy resigns.

Royal Tyrone Fusiliers—William Henry Lowry, gent., to be lieut. (supy.).

Yeomanry Cavalry.

Middlesex—Capt. W. Gillet to be major.

West Suffolk—Captain U. J. Burke resigns commission.

THE ARMY GAZETTE.

War Office, Pall Mall, March 7. Staff.

Intelligence Department—Maj. Gen. P. L. McDougall, from Depty. Insp. Gen. of Auxiliary Forces, to be depty. adjt. gen. at Headquarters; April 1, 1873.

THE MILITIA GAZETTE.

War Office, March 7.

Where not otherwise specified, the following commissions and announcements bear date March 8, 1873:—

Bedford—Lieut. C. F. Lindsell resigns commission, July 24, 1872.

Dorset—Lieut. T. C. H. Kerr Sheridan resigns commission.

Durham Artillery—Francis H. Drake, gent., to be lieut. (supy.).

West Essex—Lieut. C. Wood resigns commission, July 17, 1872; Bendyshe Williams Ellys Walton, gent., to be lieut. (supy.).

Royal North Gloucester—Capt. G. Milward resigns commission.

Hampshire Artillery—Lieut. U. Butcher resigns commission.

West Kent—Capt. H. R. Beattie resigns commission.

1st Royal Lancashire—Lieut. J. W. Yates resigns commission.

3rd Royal Lancashire—Capt. J. A. B. Jay resigns commission.

5th Royal Lancashire—Capt. P. J. H. Butler resigns commission.

6th Royal Lancashire—Lieut. G. Baker to be capt.; Lieut. J. Braybrooke to be capt.

7th Royal Lancashire—Joseph Cunliffe Fenton, gent., to be lieut.

1st or West Norfolk—Major G. A. Marsham is permitted to retain his rank and wear the uniform on retirement.

Norfolk Artillery—Lieut. Sir F. G. M. Boileau, Bart., resigns commission.

3rd Royal Surrey—The appoint-

ment of Lieut. M. Stringer notified in the *Gazette* of July 16, 1872, to bear date June 29, 1872.

Memorandum.

5th West York—With reference to the *Gazette* of Feb. 4, 1873, the Christian names of Lieut. Broadbent are F. Holdsworth.

Dublin County—George Daniel Casey, gent., to be lieut. (supy.).

Royal Dublin City—George R. MacMullen, gent., to be lieut.

Galway—Capt. O. Martyn to be major.

Kildare—Major V. Lord Cloncurry resigns commission.

2nd or North Tipperary—Major H. Carden resigns his commission, and is permitted to retain his rank and wear the uniform on retirement.

Yeomanry Cavalry.

Buckinghamshire—Capts. C. W. Powell and C. R. Carington resign commissions.

Royal East Kent—George R. Canning, Lord Harris, to be capt., vice Lambert, to be made supy.

Nottinghamshire (Southern Nottinghamshire)—Capt. H. Beevor and Lieut. C. T. W. Forester resign commissions; Cornet the Hon. F. Strutt to be lieut., vice Forester, who resigns.

Royal Wiltshire—Lieut. F. T. A. H. Bathurst, and Cornets V. F. B. Stamford and the Hon. P. S. Methuen resign commissions.

THE VOLUNTEER GAZETTE.

War Office, March 4.

Where not otherwise specified, the following commissions bear date March 5, 1873:—

1st Adm. Brig. Argyllshire Artillery—James Bett, Esq., Capt. 1st Argyllshire Artillery, to be major.

1st Adm. Batn. Bedfordshire Rifles—William Martin Grahame, gent., to be qrmr.

1st Adm. Batn. Cambridgeshire Rifles—Alfred N. Jones, gent., to Hon. Assist. Surg. 17th Essex Rifles, to be assist. surg.

3rd Cambridge Rifles—Herbert Perceval, gent., to be lieut., vice Ley, promoted. Frank H. Stubb,

gent., to be ens., vice Willacy, promoted.

21st Cheshire Rifles—Jonathan Thornbill Ashton, gent., to be ens.

12th Derbyshire Rifles—Lieut. F. Wright to be capt.; Captain F. Wright to bear the title of captain commandant; Lieut. P. Wright to be capt.; Ens. F. Corfield to be lieut.

2nd Devonshire Rifles—Ensigns W. J. Penn, A. Dyer, and J. J. Avery, to be lieuts.

11th Dumbartonshire Rifles—Rev. H. Parks to be acting chap.

3rd Durham Rifles—Lieut. Col. W. B. Ferguson resigns commission.

6th Durham Rifles—Jacob S. Denham, gent., M.D., to be acting assist. surg.

2nd Fife Rifles—Ens. D. Osborne to be lieut.

1st Adm. Brigade Kent Artillery—Edward Wates, gent., to be qrmr.

1st Kent Artillery—Rev. F. A. March to be acting chap.

2nd Kent Artillery—Hon. Chap. the Rev. C. E. Donne to be acting chap.

5th Kent Artillery—Hon. Chap. the Hon. and Rev. H. Legge, D.C.L., to be acting chap.

9th Kent Artillery—Edward T. Hughes, gent., to be sec. lieut.

10th Kent Artillery—Major F. G. Finch to be lieut. col., vice Westmacott, resigned; H. Hudson, gent., to be first lieut.

11th Kent Artillery—Honorary Assist. Surg. J. W. Howard to be acting assist. surg.; Hon. Chap. the Rev. F. I. Jones to be acting chap.

12th Kent Artillery—Honorary Assist. Surg. T. E. F. Seabrook, M.D., to be acting assist. surg.; Hon. Chap. the Rev. F. A. Gardiner, M.A., to be acting chap.

13th Kent Artillery—Honorary Chap. the Rev. G. Bryant to be acting chap.

1st Lanarkshire Rifles—Ensign D. Johnson to be lieut.

3rd Lanarkshire Rifles—Andrew Muir, gent., to be ens., vice Burns, promoted; D. Hamilton, gent., to

be ens., vice Mactear, resigned.

25th Lanarkshire Rifles—Capt. S. G. G. Copestake and Lieut. G. Duncan resign commissions.

1st Lancashire Rifles—John E. Rayner, gent., to be ens.

6th Lancashire Rifles—John H. Ewart, gent., to be assist. surg.

17th Lancashire Rifles—John Jones, gent., to be ens.

27th Lancashire Rifles—William Arthur Haslam, gent., to be ens.

47th Lancashire Rifles—Ensign W. H. Deacon to be lieut., vice Olave Deacon, resigned; Joseph Morrison, gent., to be ens.

54th Lancashire Rifles—Thomas Jackson, gent., to be ens.

1st Adm. Batn. Leicestershire Rifles—Lieut. Col. Sir H. St. J. Halford, Bart., resigns commission.

1st London Rifles—Lieutenants R. Walker and T. S. Crossley to be capt.; Ensigns T. J. Poulter and L. Pearse to be lieuts.

4th Middlesex Rifles—Ens. J. F. Starkey to be capt.

11th Middlesex Rifles—Ens. F. C. Hudson to be lieut.

16th Middlesex Rifles—W. C. Palmer, gent., and W. F. Watson, junior, gent., to be ensigns.

20th Middlesex Rifles—Capt. H. St. J. Tweedy resigns commission.

22nd Middlesex Rifles—Captain and Adj. R. D. Tyler and Captain W. Homfray resign commissions.

23rd Middlesex Rifles—Ensign F. P. Tomlinson to be lieut., vice James, promoted.

28th Middlesex Rifles—W. H. Roberts, gent., to be ens.

39th Middlesex Rifles—Lieut. R. C. Vanscolina and J. J. Graham to be capt.; Ensigns G. Chaffey and F. Foster to be lieuts.

46th Middlesex Rifles—Arthur William Savage, Esq., to be capt.; Ens. W. J. Bearne to be lieut.

49th Middlesex Rifles—Captain M. J. Brown resigns commission; George Gregory, gent., to be ens., vice Reeves, resigned.

1st Midlothian Artillery—Sec. Lieut. F. Dunsmure to be first lieut.

1st Adm. Batn. Monmouthshire Rifles—F. Allfrey, Esq., Major

3rd Monmouthshire Rifles, to be major.

7th Monmouthshire Rifles—Lieut. J. H. Willmet resigns commission; Ensigns A. J. Stevens and T. G. Jones to be lieuts.; Rev. T. L. Lister to be acting chap.

1st Adm. Batn. Monmouthshire Rifles—Major R. D. Harrison, resigns commission.

1st Nairn Artillery—Donald Grant, gent., and Edward Simpson, gent., to be lieuts.

7th Northumberland Rifles—Ens. T. S. Allison to be lieut.

1st Oxfordshire Rifles—Capt. J. V. Fitzgerald and G. O. Pardoe, Lieut. J. L. Watson, and Ens. J. A. W. Wadmore resign commissions.

5th Perthshire Rifles—Robert Lunan, to be acting assist. surg.

4th Shropshire Rifles—Alfred Mathias, gent., to be acting assist. surg.

1st Somersetshire Rifles—Fredk. Dawson, gent., to be ens.

2nd Somersetshire Rifles—Ens. Edward Silvanus Appleby to be lieut.

18th Somersetshire—Ens. J. S. Turner to be lieut.

1st Worcestershire Rifles—Lieutenant E. J. Morton to be capt.; Ens. J. F. H. Saunders to be lieut.

8th Worcestershire Rifles—Lieut. B. Danks to be capt., vice Harrison, resigned.

2nd North York Artillery—A. Octavius Marwood, gent., to be sec. lieut.

12th North York Rifles—James Lonsdale Broderick, gent., to be ens.

3rd Adm. Batn. West York Rifles—J. C. D. Charlesworth, Esq., to be hon. col.

1st West York Rifles—Charles Henry John Lawton, gent., to be ens.

7th West York Rifles—Arthur Edward Flood, gent., to be lieut.

23rd West York Rifles—Ens. E. P. Arnold to be lieut.

27th West York Rifles—Ens. F. D. Wise to be lieut.

THE ARMY GAZETTE.

War Office, Pall Mall, March 11.

Royal Artillery—The undermentioned Gentlemen Cadets, from the R.M. Academy, to be lieuts., with temporary rank, dated March 12, 1873, viz. —Percy A. McMahon, vice W. F. Nelson, promoted. H. Chesshyre Claughton Walker, vice H. G. Willis (late Bengal), promoted. Reignald Oakes, vice S. S. Bomford, deceased. Edward Nathaniel Henriques, vice E. Clayfield-Ireland, promoted. Francis Beaufort, vice V. C. Fisher (late Bengal), promoted. James Wolfe Murray, vice H. L. Mackenzie (late Bengal), promoted. Herbert Jones Daubeney, vice G. M. B. Hornsby, promoted. Ernest Cassan, vice F. T. Bircham, resigned. Richard Francis Johnson, vice C. Jones, promoted. William Robert Prickett, vice R. Bazett (late Bengal), promoted. Augustus Fredk. Liddell, vice G. R. Gambier (late Madras), promoted. George Wm. Buchanan, vice D. W. Lawrell (late Madras), promoted. John Stewart Scott Barker, vice R. G. Fitzgerald, deceased. Frederic Brice Bunny, vice A. B. Brown, promoted. A. Mansel, vice H. W. L. Hime, placed upon the Supernumerary List. Arthur Houston Hewat, vice L. Downes, promoted. C. B. D'Anyers Willis, vice B. R. Greig, promoted. Harry George Weir, vice J. W. Bernard, promoted. J. Dacres Cunningham, vice J. B. Ormsby, promoted. George F. Farquharson Shirreff, vice R. Walkey, promoted. Henry John Lyster, vice J. W. Inge, promoted. Arthur Mordaunt Murray, vice H. W. Browne, promoted.

Royal Engineers—Major Hector Tulloch (late Madras) retires on half pay. The temporary commissions as lieut. of the undermentioned officers to be made permanent:—William Terence Shone; Jan. 4, 1871. Henry William Henry Duperier; Jan. 4, 1871. The undermentioned Gentlemen Cadets to be lieuts., with temporary rank, dated March 12, 1873, viz.:—Henry Davison Love, John Warre Sill, Kenneth Mackean, Arthur Henry Bagnold, Harry B. Willock, Willoughby Verner Con-

stable, Robert Jennings, Charles Henry Darling, John Jervois, H. Edward Rawson, Ernest Frederick Rhodes, William Jacob Mackenzie, Henry Speed Andrews-Speed, P. Thomas Buston, John C. Tyler, George Hamilton Sim.

War Office, Pall Mall, March 14,
Where not otherwise specified the following commissions and announcements bear date March 15, 1873:—

1st Dragoon Guards—Lieut. W. H. Thompson, to be capt., vice A. Hutton, retired; Feb. 12, 1873.

3rd Dragoon Guards—Lieut. O. G. Bolitho to be capt., vice J. Norton, retired; Feb. 12, 1873.

1st Dragoons—W. H. MacLaren, gent., to be sub lieut., vice Pringle, transferred to the 56th Foot.

3rd Hussars—Lieut. J. Cooke to be capt., vice H. R. Pim, retired.

14th Hussars—Lieut. J. R. Bray, retires from the service, receiving the value of his commission. Lieut. J. Kentish to be adjt., vice Lieut. Bray.

19th Hussars—Sub Lieut. E. D. Feraldi retires from the service.

20th Hussars—John D. Garmeson, gent., to be sub lieut., in succession to Lieut. C. Mangles, promoted.

21st Hussars—Lieutenant B. A. Combe to be capt., vice H. Coghlan, retired; Feb. 12, 1873.

Grenadier Guards—Captain and Lieut. Col. L. R. Seymour retires from the service, receiving the value of his commission.

Scots Fusilier Guards—Lieut. and Capt. F. W. E. F. Walker to be capt. and lieut. col., vice C. L. Peel, retired; Feb. 1, 1873. Lieut. and Capt. the Hon. W. S. H. Jolliffe retires from the service, receiving the value of his commission; Lieut. Lord F. C. Gordon-Lennox to be lieut. and capt., vice Walker; Feb. 1, 1873.

Brigade Depôts—The surname of the second Brevet Colonel appointed in the *Gazette* of the 25th ultimo is Hort, not Hart, as then stated.

1st Foot—George Charles Peard,

gent., to be sub lieut., in succession to be Lieut. E. G. Gyll, retired.

2nd Foot—Major C. Gibbs, from the Supernumerary List, to be major, vice R. G. Brady, deceased; Jan. 17, 1873.

5th Foot—Lieut. W. F. Longbourne to be capt., vice H. Walpole, deceased; Jan. 16, 1873. Lieut. W. C. Ormond to be capt., vice Brevet Lieut. Col. W. McDonald, retired; Feb. 12, 1873. Capt. B. V. Layard, from half pay late 3rd West India Regiment, to be capt., vice William Douglas Legge, retired upon temporary half pay.

8th Foot—Lieut. W. Louis to be instr. of musk., vice Lieut. F. J. Stuart, who has resigned that appointment; Dec. 31, 1872.

10th Foot—Lieut. W. N. Whitby to be capt., vice A. Fraser, retired; Feb. 12, 1873.

11th Foot—Sub Lieut. C. M. Fitzgerald to be lieut.; Dec. 30, 1871.

12th Foot—Captain R. J. Stansfeld retires from the service, receiving the value of his commission; March 15, 1873.

14th Foot—Sub Lieut. W. S. Hewett to be lieut.; Dec. 30, 1873.

17th Foot—William S. Wodehouse, gent., to be sub lieut., in succession to Lieut. Harris, promoted.

19th Foot—Lieut. H. M. Stapleton retires from the service, receiving the value of his commission.

21st Foot—Capt. G. A. Grant, retires from the service, receiving the value of his commission.

23rd Foot—Lieut. J. M. Clayton to be capt., vice Molyneux, retired; Feb. 26, 1873.

25th Foot—Capt. E. G. Horne retires from the service, receiving the value of his commission; Sub Lieut. R. F. Jameson to be lieut.; Oct. 28, 1871.

27th Foot—Lieut. H. M. Caine to be capt., vice W. H. Twemlow, deceased: Feb. 14, 1873.

36th Foot—Sub Lieut. G. Duns-mure to be lieut.; Dec. 30, 1871.

40th Foot—Capt. E. Hall retires from the service, receiving the value of his commission. Lieut.

J. T. Whelan to be capt., vice Brevet Maj. L. W. Fisher, retired; Feb. 12, 1873. Lieut. J. Brougham to be adjt., vice Lieut. A. Wilkinson, who has resigned that appointment; Jan. 6, 1873.

42nd Foot—Lieut. A. F. Kidston to be captain, vice Underwood, retired; Feb. 12, 1873.

45th Foot—Capt. J. I. Preston to be major, vice G. C. Close, retired; Feb. 12, 1873. Lieut. O. W. de Sagt  -de Thoren to be capt., vice Preston; February 12, 1873. Lieut. W. P. Townley retires from the service, receiving the value of his commission.

56th Foot—Lieut. Colonel and Brevet Col. G. W. Patey retires from the service, receiving the value of his commission.

57th Foot—Capt. E. G. Hasted retires from the service, receiving the value of his commission. Qrmr. J. Whittaker retires upon half pay.

59th Foot—Capt. J. T. Bowers retires from the service, receiving the value of his commission.

60th Foot—Major and Brevet Col. H. F. Williams to be lieut. col., vice Brevet Col. G. Rigaud, retired on full pay; Feb. 1, 1873. Capt. F. D. Farquharson to be maj., vice Brevet Col. Williams; Feb. 1, 1873. Lieut. W. Warren to be capt., vice J. O. Young, retired; Feb. 1, 1873. Lieut. P. J. H. A. Barne to be capt., vice E. H. Ward, retired; Feb. 12, 1873. Lieut. G. T. Whitaker to be capt., vice A. Carlisle, retired; Feb. 26, 1873.

61st Foot—Lieut. A. C. Fryer to be instr. of musk., vice Lieut. the Hon. E. J. Chetwynd, promoted; Feb. 2, 1873.

64th Foot—Capt. V. Ryan to be major, vice Brevet Lieut. Col. H. Francis, retired upon full pay; Feb. 12, 1873. Lieutenant E. W. Carleton to be capt., vice Ryan; Feb. 12, 1873.

65th Foot—Major C. Blewitt to be lieut. col., vice R. H. MacGregor, retired; Feb. 12, 1873. Capt. G. B. Wolseley, from the 105th to be capt., vice Heries; Feb. 12, 1873. Lieut. C. G. B. Martin to be capt., vice J. H. G. Holroyd, retired; Feb. 12, 1873. Lieut. J. C

Fife to be capt., vice R. Murray, retired; Feb. 26, 1873.

68th Foot—Lieutenant W. J. St. Aubyn to be captain, vice C. C. Hood, retired; Feb. 12, 1873.

70th Foot—Sub Lieut. C. H. M. Smith to be lieut.; Oct. 28, 1871.

72nd Foot—Sub Lieut. J. W. Hughes Hallett, from the 53rd Foot, to sub lieut., in succession to Lieut. H. Musgrave, retired; March 15, 1873.

74th Foot—Lieut. R. Leigh to be capt., vice J. F. Darvall, retired; Feb. 12, 1873.

75th Foot—Lieut. E. G. Miller retires from the service, receiving the value of an ensigncy.

78th Foot—Capt. G. P. Taylor retires from the service, receiving the value of his commission.

81st Foot—S. Jackson, gent., to be sub lieutenant, in succession to Lieut. J. B. Carey, transferred to the 98th Foot.

83rd Foot—Sub Lieut. G. A. Beresford to be lieut.; Dec. 30, 1871.

88th Foot—Lieut. J. Pass retires from the service, receiving the value of his commission.

98th Foot—Lieut. J. B. Carey, from the 81st Foot, to be lieut., vice A. H. Hornsby, retired.

101st Foot—G. H. Lane, gent., to be sub lieut., in succession to Lieut. C. E. Hurst, retired.

105th Foot—Capt. H. F. Wilson retires from the service, receiving the value of his commission.

106th Foot—Capt. E. G. Peyton retires from the service, receiving the value of his commission.

109th Foot—Lieut. A. Balderson to be capt., vice E. S. Beville, retired on half pay pension. Sub Lieut. A. J. Loudon to be lieut.; Jan. 10, 1872.

Rifle Brigade—Capt. C. E. Musgrave to be major, vice J. Brett, retired on full pay; Feb. 26, 1873. Capt. G. L. Austin retires from the service, receiving the value of his commission.

2nd West India Regiment—W. S. G. Trist, gent., to be sub lieut., in succession to Ens. J. S. Bird, promoted.

Control Department

Comm. J. M. Lindsey, to be assist. cont., vice Rogers, to retired pay; Feb. 1, 1873.

Supply and Transport Sub Department—Dep. Comm. H. W. Hackman to be supy. comm., vice Lindsey; Feb. 1, 1873. Assistant Comm. G. Richards retires upon temporary half pay on account of ill-health.

Medical Department.

Staff Assist. Surg. F. H. Dunbar, M.D., retires upon temporary half pay; Feb. 1, 1873. Staff Assist. Surg. C. Smith retires upon temporary half pay; Feb. 7, 1873.

Veterinary Department.

Benjamin Augustus W. Powell, gent., to be acting vet. surg., vice W. A. Crow, who resigns his appointment.

Chaplain's Department.

The Rev. G. Wylde, M.A., Chaplain of the Third Class, to be chap. of the second class; Feb. 25, 1873.

Half Pay.

Lieut. J. Ferguson, from the 2nd Foot, to be capt.

Unattached.

Lieut. and Brevet Capt. T. Doyle, on the Unattached List of H.M.'s Indian Army, Barrack Master, Allahabad, to be capt. Bengal Establishment.

Brevet.

The honorary rank as Major of Paymr. J. E. Longden, 77th Foot, to be antedated to April 24, 1870. Paymr. A. S. G. Jauncey, 24th Foot, to have the honorary rank of capt.; Feb. 1, 1873. Qrmr. J. Whittaker, 57th Foot, to have the honorary rank of capt. on retiring on half pay.

The undermentioned Warrant officers to have the honorary rank of ens.:—Dept. Assist. Comm. Collins Madras Establishment; Nov. 26, 1872. Dep. Assist. Comm. P. Riordan, Bengal Establishment.

Memorandum.

The undermentioned officers receiving the value of their commissions:—Lieut. Col. T. E. Blomfield, half pay, late 26th Foot. Major and Brevet Lieut. Col. T. W. Cator, half pay, late 76th Foot.

Lieut. E. Manning, half pay, late 47th Foot.

THE MILITIA GAZETTE.

War Office, March 14.

Where not otherwise specified the following commissions and announcements bear date March 15, 1873.

Royal Berks—George A. C. Reid, gent., to be lieut.; William Henry Hippisley, gent., to be lieut. (supy.).

1st Royal Cheshire—Major and Hon. Lieut. E. Col. Leigh resigns commission, and is permitted to retain his rank and wear the uniform.

Dorset—Reginald Grant Dalton, gent., to be lieut.

1st Durham—Lieut. Col. Comm. C. F. Surtees resigns commission; Charles Freville Surtees, late Lieut. Col. Comm., to be hon. col.

West Essex—Surg. J. T. Gilson resigns commission.

Royal Flint—Capt. R. P. Warren is granted the honorary rank of major.

Royal South Gloucestershire—Robert Francis Gordon Canning, gent., to be lieut.

Royal North Gloucestershire—Lieut. A. C. W. Boyce resigns commission; Jan. 1, 1873.

West Kent—Capt. S. Lewis resigns commission.

Hereford—Capt. J. H. Griffiths resigns commission; also is granted the honorary rank of major, and is permitted to continue to wear the uniform on retirement.

1st Royal Middlesex—Capt. C. W. Bamfylde Wells resigns commission, and is permitted to retain his rank, and wear the uniform on retirement.

3rd Royal Middlesex—Lieut. C. J. Stone resigns commission.

4th Royal Middlesex—Captain Count W. C. Rivarola to be major vice FitzJames, promoted.

5th Royal Middlesex—George Herbert Morrison, gent., to be lieut. (supy.).

Northumberland—Capt. Sir J. Conroy resigns commission.

Oxford—Capt. A. M. Harte re-

signs commission, and is permitted to retain his rank, and wear the uniform on retirement; Lieut. S. Brewis to be capt., vice Harte.

1st Somersetshire—Captain M. Dettmar resigns commission, and is permitted to retain his rank and wear the uniform on retirement.

Royal Sussex—Captain F. E. Dowler resigns commission; Lieut. F. S. O'Bierne to be capt., vice Dowler; Edward B. Crake, gent., to be lieut. (supy.).

1st Warwick—Lieutenant G. C. Douglas resigns commission.

1st West York—Captain W. Walker is granted the honorary rank of major.

2nd West York—Edward H. Lockley, gent., to be lieut. (supy.).

3rd West York—Capt. F. Durham resigns commission, is granted the honorary rank of major, and is permitted to continue to wear the uniform on retirement.

Dumfries, Roxburgh, Kirkcudbright, and Selkirk—Major G. G. Walker to be lieut. col. comdt, vice Butler-Johnstone, resigned.

Antrim Artillery—Valentine J. Cornwall, gent., to be lieut.

Donegal—Qrmr. George Ernest McL. Mason resigns his commission, and is placed on a retired allowance.

Limerick County—Capt. E. F. H. Burton resigns commission.

Limerick City Artillery—Major Comm. the Hon. C. S. Vereker to be lieut. col. comm.

Londonderry—A. Skipton, gent., to be assist. surg., vice Smith, deceased.

Wexford—James Walter Milles, Viscount Stopford, to be lieut. (supy.).

Wicklow—William Heighinton, gent., to be lieut. (supy.).

Yeomanry Cavalry.

The Duke of Lancaster's Own—Lieut. Howard Ashton to be capt., vice the Marquis of Hartington, resigned. Cor. Edmund Ashton to be lieut., vice Howarth Ashton, promoted. Cor. Frederick Platt to be lieut., vice Starkie, to be made supy. Robert Whitehead Buckley, gent., to be cor. (supy.).

Leicestershire—Cornet Samuel

William Clowes to be lieut., vice Douglas, resigned. Cor. Charles Ashton to be lieut., vice Paget, resigned.

West Suffolk — Lieut. Edward Phillipe Mackenzie to be captain, vice Burke, resigned.

THE VOLUNTEER GAZETTE.

War Office, March 14.

Where not otherwise specified, the following commissions and announcements bear date March 15, 1873:—

1st Aberdeenshire Rifles—Lieut. William Leslie to be capt. Ens. Alexander Hector to be lieut.

4th Aberdeenshire Rifles—Lieut. Thomas Ritchie resigns his commission. Hon. Assist. Surg. J. Leslie resign commission. Andrew Mitchell, gent., to be acting assist. surg. The Rev. John Wallace to be acting chap.

1st Adm. Brigade Anglesey Artillery—Hon. Qrmr. Thomas P. Elliott resigns his commission.

1st Bedfordshire Rifles—Alfred Whitaker, gent., to be ens.

2nd Berkshire Rifles—Lieut. R. Rivington Holmes to be captain. Capt. Richard Rivington Holmes to bear the title of capt. comdt.

1st Berwickshire Rifles—Ensign Robert George Swan resigns his commission.

1st Berwick-on-Tweed Artillery—First Lieut. Andrew Thompson resigns his commission. Second Lieut. James Drysdale Purves to be first lieut.

8th Buckinghamshire Rifles—Captain Samuel Thomas George Evans resigns commission.

3rd Cambridge Rifles—George Washington Kinloch, gent., to be lieut. John Colville M. Mansell-Pleydell, gent., to be ens.

4th Cheshire Rifles—Charles S. Dean, gent., to be ens.

20th Cheshire Rifles—Lieut. J. Wilkinson resigns his commission. Ens. Charles Edward Wilkinson to be lieut.

27th Cheshire Rifles—Charles Daniell Keyworth, gent., to be ens.

1st Adm. Brigade Cinque Ports Artillery—William Rowe Lewis,

Esq., Captain 6th Cinque Ports Artillery Volunteer Corps, to be major.

4th Cornwall Artillery—First Lieut. R. H. Williams resigns his commission.

5th Cumberland Artillery—H. Fraser Curwen, Esq., to be capt.

8th Cumberland Rifles—Ensign William Bailey resigns his commission.

5th Denbighshire Rifles—Capt. Edward French resigns his commission. Lieut. Thomas Bury to be capt. Ens. John O. Bury to be lieut.

8th Derbyshire Rifles—Ensign William Wise to be lieut.

1st Adm. Batn. Devonshire Rifles—Capt. and Adj. Lane to be placed on retired pay, and to have the honorary rank of major.

2nd Devonshire Rifles—William Rew, gent., to be ens. Henry Wheaton, gent., to be ens. James Rendle, gent., to be ens.

4th Dumbartonshire Rifles—Captain Archibald Orr Ewing resigns his commission. Archibald Orr Ewing, Esq., jun., to be capt.

1st Edinburgh Artillery—Capt. Andrew Syme resigns his commission.

1st Edinburgh Rifles—Ensign Andrew S. Brewster resigns his commission. Lieut. James Barker Duncan to be capt. Lieut. Wm. Braid to be capt. Ens. Andrew William Belfrage to be lieut., vice Duncan, promoted.

3rd Essex Artillery—Capt. and Adj. Tufnell resigns his commission.

1st Adm. Batn. Flintshire Rifles—Major the Earl of Denbigh to be lieut. col.

4th Forfarshire Artillery—T. Gilroy, gent., to be sec. lieut. E. Cox, gent., to be sec. lieut. James Chalmers Mackenzie, gent., to be sec. lieut.

1st Forfarshire Rifles—David Ferguson, gent., to be ens.

17th Glamorganshire Rifles—Lieut. David Bevan resigns his commission. Ensign James Kerr resigns his commission.

1st Haddington Artillery—Sec.

Lieut. C. Kelly resigns his commission.

2nd Hampshire Rifles—Ensign George Brinton resigns his commission.

20th Hampshire Rifles—Ensign Charles Bovill Smith resigns his commission.

3rd Herefordshire Rifles—John Richard Smith, gent., to be ens.

1st Huntingdonshire Rifles—Capt. Comdt. J. M. Heathcote resigns his commission. Capt. John Peppercorn to bear the title of capt. Lieut. William Cluff to be capt. Lieut. Samuel Day resigns his commission. Ensign Robert Hutchinson to be lieut. Ensign Perceval Rogers to be lieut.

1st Adm. Brigade Kent Artillery—Major John F. Crookes resigns his commission.

1st Kent Rifles—Capt. Horatio R. Cutbush resigns his commission. Lieut. William Haynes to be capt. Ens. John Arkcoll to be lieut.

3rd Kent Rifles—Capt. Hugh Mackay Gordon to bear the title of capt. comdt.

1st Lanarkshire Artillery—Captain David George Hoey resigns his commission.

1st Lanarkshire Rifles—Lieut. Robert R. Lindsay resigns his commission.

25th Lanarkshire Rifles—Lieut. John Thomson Henderson to be capt. Lieut. Peter W. Hall to be capt. Lieutenant William Boyd Anderson to be capt.

31st Lanarkshire Rifles—Edwd. McMillan, gent., to be assist. surg.

105th Lanarkshire Rifles—Capt. Robert Stewart resigns his commission. John Adam Stewart, gent., to be ens.

5th Adm. Batn. Lancashire Rifles—James Robinson, gent., Assist. Surgeon, 37th Lancashire Rifle Volunteer Corps, to be assistant surg.

1st Lancashire Rifles—Lieut. Charles Frederick Smith to be capt.

5th Lancashire Rifles—James J. Johnson Ellis, gent., to be lieut. Charles Reeves Ellis, gent., to be ensign.

40th Lancashire Rifles—Robert

Hartley Gill, gent., to be ens.

1st London Rifles—William Frederick, Earl Waldegrave, to be ens. William Edward Ramsden Wood, gent., to be ens. Boleslas Henry d'Avigdor, gent., to be ens.

2nd London Rifles—Lientenant Alban Henry Thomas Wadmore resigns his commission.

3rd London Rifles—Ens. Wm. Frederick West to be lieut.

2nd Middlesex Artillery—First Lieut. James Greenwood to be capt. Second Lieut. John Steed Churchware to be first lieut. Sec. Lieut. James Turner Jay to be first lieut.

3rd Middlesex Artillery—Wm. Henry Bowcher, gent., to be sec. lieut. Herbert J. Rolls, gent., to be sec. lieut.

1st Middlesex Rifles—Honorary Chap. the Rev. William Bentinck Hawkins resigns his commission.

9th Middlesex Rifles—Lieut. A. Scott resigns his commission.

18th Middlesex Rifles—Ensign William Henry McLaren resigns his commission.

19th Middlesex Rifles—Arthur Cooke, gent., to be ens.

20th Middlesex Rifles—James S. Symon, gent., to be ens.

22nd Middlesex Rifles—Roper Dacre Tyler, Esq., to be major.

26th Middlesex Rifles—Henry Ellis, gent., to be ens.

29th Middlesex Rifles—Lieut. Richard Garrard Kestin resigns his commission. Ens. Arthur J. Kestin resigns his commission.

37th Middlesex Rifles—Harry Cooke Baines, gent., to be ens. William Churchill Tayler, gent., to be ens.

38th Middlesex Rifles—Lieut. Arthur Wagg resigns his commission.

49th Middlesex Rifles—John Blanchard, gent., to be lieut.

8th Monmouthshire Rifles—John Henry Freer, gent., to be lieutenant. Thomas Hambly, gent., to be ens.

1st Adm. Batn. Montgomeryshire Rifles—Captain and Adj. Delmar resigns his commission.

1st Newcastle-on-Tyne Artillery

—First Lieutenant Herman Northwanger to be capt. John Heath Bald, Esq., to be capt. David Dunlop, Esq., to be capt. John Jackson, gent., to be first lieutenant. Alfred Fellowes, gent., to be first lieutenant. James Pursell, gent., to be first lieutenant. James Edward Marly, gent., to be second lieutenant.

5th Orkney Artillery — John Forbes, gent., to be second lieutenant.

6th Orkney Artillery—The Rev. D. R. Jack to be acting chaplain.

15th Perthshire Rifles—John John Halley, gent., to be lieutenant.

7th Somersetshire Rifles—Lieutenant George Snow Tricks to be capt.

4th Adm. Batn. Staffordshire Rifles—Francis William Underhill, gent., Honorary Assistant Surgeon. 11th Staffordshire Rifle Volunteer Corps, to be assistant surgeon.

7th Stirlingshire Rifles—Captain Thomas Wilson resigns his commission.

1st Surrey Artillery — First Lieutenant Frederick A. MacMinn resigns his commission. Second Lieutenant John J. Wilson, jun., resigns his commission. Second Lieutenant Henry M. D. Mathews resigns his commission. Hon. Assistant Surgeon R. T. Daniell, M.D., resigns his commission.

2nd Surrey Rifles—Lieutenant John Freeland to be capt.

18th Surrey Rifles — Ensign Walter M. Parker resigns his commission.

19th Surrey Rifles—Ensign Frank William Hadden to be lieutenant.

6th Sussex Rifles—Ensign Walter Holland resigns his commission.

1st Warwickshire Rifles—Lieutenant Thomas Adkins resigns his commission.

1st Westmoreland Rifles—Lieutenant Francis F. Pearson resigns his commission. Ensign Joseph Gibson resigns his commission.

4th East Riding of Yorkshire Artillery — Hon. Quartermaster Edwin Gray resigns his commission. E. Gray, gent., to be quartermaster. Captain and Adjutant William Elliott to be placed on retired pay, and to have the hon. rank of major.

3rd North Riding of Yorkshire Artillery—Captain George Taylor resigns his commission.

8th West Riding of Yorkshire Artillery—Captain John Graham Wheelwright resigns his commission. First Lieutenant Louis John Crossley to be capt. First Lieutenant Alexander Suter resigns his commission. Second Lieutenant Edmund W. Wavell to be first lieutenant. Second Lieutenant Harry James Franklin resigns his commission.

1st West Riding of Yorkshire Rifles—Captain Charles Cabry resigns his commission. H. Wood, Esq., to be capt.

7th West Riding of Yorkshire Rifles — Charles Edward Bolton, gent., to be lieutenant. Frederick H. Burton, gent., to be lieutenant.

19th West Riding of Yorkshire Rifles—Hon. Chaplain Rev. Richard Mosley resigns his commission.

36th West Riding of Yorkshire Rifles—Hon. Chaplain Rev. Richard Mosley resigns his commission.

THE ARMY GAZETTE.

War Office, Pall Mall, March 18.

Brigade Depot—Lieutenant Colonel and Brevet Colonel W. F. Macbean, from the 13th Foot, to be lieutenant colonel; April 1, 1873.



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